

## ***International conference***

# **Teaching culture and the quality of learning - The contribution of video-based research to the improvement of education**

***June 23 to 28, 2002, Monte Verità/Ascona, Switzerland***

### ***Organizers***

**Prof. Dr. Kurt Reusser, Dr. Christine Pauli,  
*University of Zurich, Institute of Education***

The conference brings together an international group of educational scientists involved in video-based cross-cultural research on teaching and learning. For a long time, the focus of scientific attention of international studies, as well as in traditional research on learning and instruction, has been on *effectiveness*, as usually measured by academic achievement. When the focus was on instructional *processes*, a variety of methods in addition to achievement tests, such as teacher and student questionnaires and classroom observation, have been used in empirical studies on instructional quality.

More recently, advances of video technology have contributed to expand the repertoire of research tools in studies on learning and teaching. The TIMSS video study (Stigler et al., 1996; 1999) was the first cross-cultural video survey. In this study, videos were used to compare mathematics teaching in the *USA*, in *Germany* and in *Japan*. Further national and cross-cultural video-based studies have recently been conducted, such as TIMSS-R video (including *Australia, Hong Kong, the Netherlands, Czech Republic, USA, Switzerland*), or a national study on mathematics teaching in *Switzerland*. Additional studies on mathematics and science teaching, on history and political education are currently running or in preparation.

Using video in comparative educational research has several advantages. Among other things, video surveys enable the study of complex classroom processes based on relatively large samples. Videotaping classroom interaction allows for coding teaching from multiple perspectives, increases inter-rater reliability, and facilitates the integration of qualitative and quantitative analyses (Stigler, Gallimore & Hiebert, 2000). In addition to being used as a research tool, video has the potential to contribute substantially to the design of powerful learning environments in teacher education and professional development.

### **Conference Goals**

The conference aims at discussing the potentials, challenges and limitations of video as a tool for research on learning and instruction and for teacher education and professional development. Results of different national and international video studies will be presented at the conference, including results of the Swiss video study on mathematics.

#### ***I Video as a tool for research on teaching and learning***

The following issues will be discussed: (1) Design issues related to combining classical survey data with observational data of classroom videos. (2) The potential of video-based cross-cultural research with regard to tying the quality of educational outcomes to variations in the quality of instruction. (3) The contribution of video-based research to build arguments for a theory of

teaching and of instructional design which takes into account the multidimensional nature and quality of educational effectiveness. (4) Specific problems and issues concerning data collection and data analysis (e.g. coding procedures).

## ***II Video as a tool for designing powerful learning environments in teacher education and professional development***

What is the potential of video with regard to the design of innovative learning environments for case-based, or problem-based learning in teacher education and professional development? (1) Creation of video-based educational objects and tools for teacher education. (2) Design of video-based learning environments for professional education and development of teachers.

# Conference program

## Sunday, June 23, 2002

From 18.00 Welcome and dinner

### 20.00-21.30 **Welcome addresses and opening lectures**

*Prof. Kurt Reusser, University of Zurich, Switzerland*

*Norberto Bottani, Director of Service de la recherche en éducation (SRED), Genève, Switzerland*

*Prof. James W. Stigler, UCLA, Los Angeles, USA*

## Monday, June 24, 2002

7.00-9.00 Breakfast

### 9.00-12.15 **International video classroom study (TIMSS-R video): A cross-cultural video-based study on teaching in 7 countries (including Switzerland)**

*Prof. James W. Stigler; Prof. Ronald Gallimore, UCLA, Los Angeles, USA*

*Prof. James Hiebert; Prof. Diana Wearne, University of Delaware, USA*

12.30 Lunch

### 14.00-17.30 **The Swiss national mathematics video study**

*Prof. Kurt Reusser, Dr. Christine Pauli, Monika Waldis, Isabelle Hugener, Kathrin Krammer, Dr. Urs Grob, University of Zurich, Switzerland;*

*Ruhal Floris, Olivier De Marcellus, University of Geneva, Switzerland*

18.30 Dinner

20.00 Open space for demonstrations and discussions of video material

## Tuesday, June 25, 2002

7.00-9.00 Breakfast

9.00-12.15 **The German mathematics video studies**

*Prof. Eckhard Klieme, German Institute for International Educational Research (DIPF), Frankfurt, Germany*

*Dr. Marten Clausen, University of Mannheim, Germany*

*Mareike Kunter, Dr. Stefan Krauss, Max-Planck-Institute of Human Development, Center for Educational Research, Berlin, Germany (Prof. J. Baumert)*

12.30 Lunch

14.00-17.00 **Investigating the interplay of teaching and learning processes by combining multiple perspectives - a videotape classroom study in elementary physics instruction**

*Prof. Manfred Euler, Dr. Manfred Lehrke, Tina Seidel, Prof. M. Prenzel, Leibniz-Institute for Science Education (IPN) at the University of Kiel, Germany*

17.00 Snack

A) 17.30-19.00 **Poster presentation (see list)**

**Chairs:** *Dr. Christine Pauli, Dr. Fritz C. Staub, University of Zurich*

B) 18.30-20.00 **Public lectures to an audience of the canton Ticino**

**Chair:** *Emanuele Berger, Director Ufficio studi e ricerche, Bellinzona, Switzerland*

**Using video surveys to study teaching across cultures:  
The TIMSS-R video mathematics study**

*Prof. James Hiebert, University of Delaware, USA*

**Goals, methods, and outcomes of the first Swiss national video study on mathematics teaching and learning**

*Prof. Kurt Reusser, University of Zurich, Switzerland*

20.15 Dinner

<b>Wednesday, June 26, 2002</b>
---------------------------------

7.00-9.00 Breakfast

9.00-11.45 **The project DESI: A video study of English as a foreign language in 100 German classrooms: Goals, problems, perspectives**

*Prof. Andreas Helmke, Dr. Ingmar Hosenfeld, University of Landau, Germany*

12.00 Lunch

14.00-22.00 **Excursion:** Half-day tour to the Verzasca-Valley with dinner

<b>Thursday, June 27, 2002</b>
--------------------------------

- 7.00-9.00 Breakfast
- Video as a tool for teacher education and professional development**
- 9.00-9.20 **Introduction: Video and teacher learning**  
*Prof. Kurt Reusser, University of Zurich, Switzerland*
- 9.20-12.15 **LessonLab Viewer – A software platform for teacher learning**  
*Prof. James W. Stigler, UCLA/Lessonlab, Los Angeles, USA*  
*Lisle Staley, Lessonlab, Los Angeles, USA*
- 12.30 Lunch
- 14.00-14.30 **Video in designing and scaling-up Content-Focused Coaching**  
*Dr. Fritz C. Staub, University of Zurich, Switzerland and University of Pittsburgh, USA*
- 14.30-15.00 **MILE-Flanders: A video-based learning environment as working material in the preservice training of primary school teachers**  
*Raf Canters, University of Leuven, Belgium*
- 15.00-15.20 **The Swiss-international video studies on CD-ROM and the design of 'Educational video objects'**  
*Prof. Kurt Reusser, Caspar Noetzli, Dr. Christine Pauli, Dominik Petko, University of Zurich, Switzerland*
- 15.20-15.40 **Preview of session of Round tables**
- Break
- 16.10-17.30 **Round Tables (see list) and open space for demonstrations**
- 19.00 Dinner

<b>Friday, June 28, 2002</b>
------------------------------

- 7.00-9.00 Breakfast
- 9.00-9.45 **Discussant's statement**  
*Prof. Helmut Fend, University of Zurich, Switzerland*
- 10.00-11.20 **Teaching culture and the quality of learning. The contribution of video-based research to the improvement of education**  
*Statements of discussants representing the different research groups and discussion*
- 11.20-11.30 **Closure of conference**  
*Prof. Kurt Reusser*
- 12.15 Lunch