**Professionalization of Teachers by Using Video-based Cases** 



## "Professionalization of Teachers by Using Video-based Cases"

Cooperation Project: University of Tübingen Catholic Federal Study Group for Adult Education funded by the Federal Ministry of Education and Research



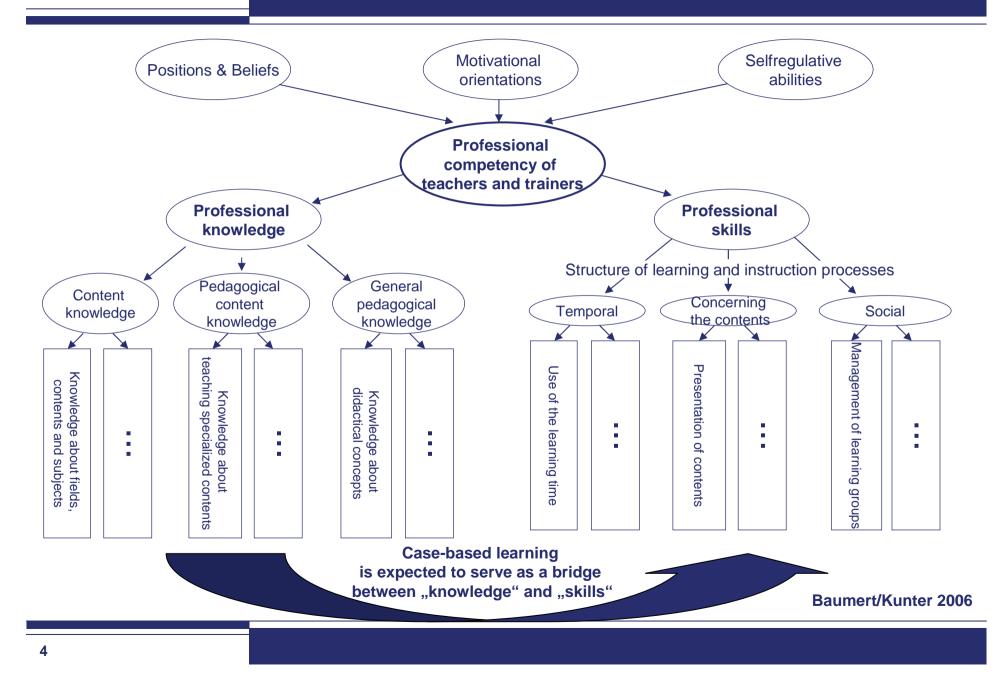
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- Current professional situation of teachers in the adult education in Germany
- Presentation of the training concept
- Expected yield of the training concept/ learning with video-based cases
- Findings on the acceptance and impact of the learning with video-based cases and the whole training concept

# **Current Professional Situation of Adult Educators** (based on various sector statistics)

- High number of teachers and trainers working in several institutions and/or part-time jobs
- Precarious and unstable employment of the teachers
- High number of across beginners with different professional backgrounds
- Specific teaching experiences and competencies that have to be dealt with in continuing training offers





# **Professional Competency of Teachers and Trainers** can be characterized

- by one's ability "to make adequate use of a broad, scientifically sound and thus in many ways abstracted knowledge in concrete situations, or vice versa: to recognize in such situations which elements from the pool of knowledge might be relevant" (Tietgens, 1988, p. 37)
- by one's ability to adopt multiple perspectives on single issues (Nittel, 2000)



# **Competency to Diagnose Pedagogical Situations**

- 3 <u>cognitive</u> components quantitativly und qualitativly measured:
- the ability to depict pedagogical situations
- the ability to adopt teacher and learner perspectives
- the ability to apply theoretical knowledge

These dimensions can be seen as central criteria to focus on to improve professional performance of teachers (Schrader & Hartz, 2003).

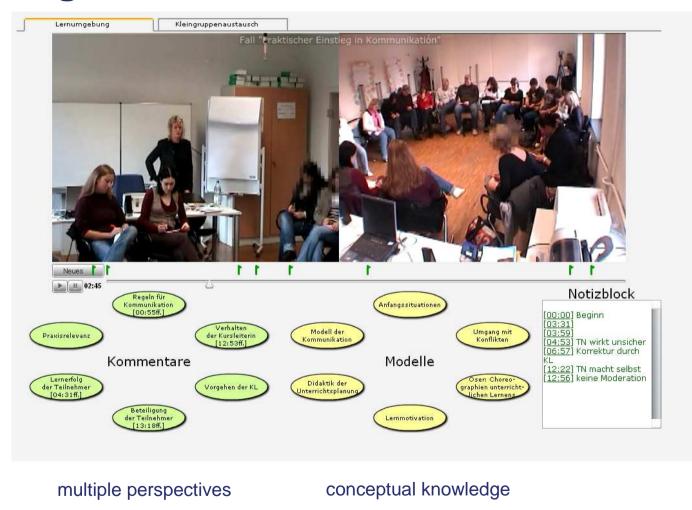


# **Concept of Learning with Video-based Cases**

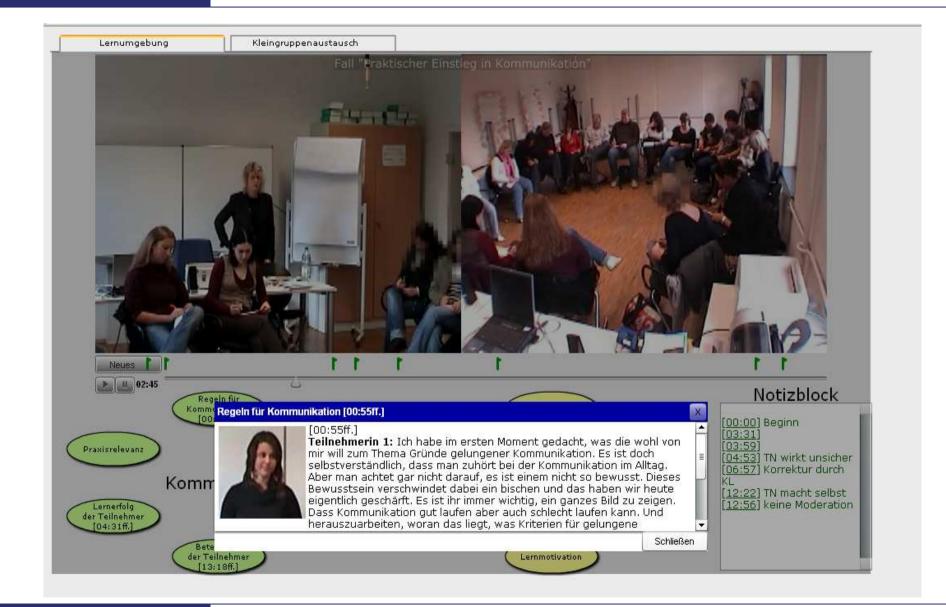
- In the discussion in Educational Science, case-based learning is expected to foster analytic and problem-solving competencies and other higher level cognitive competencies related to reflection, and to provide a realistic picture of the complexity of learning and instruction (Lundeberg, 1999; Merseth, 1999).
- In the project, selected every-day educational processes are videotaped. The cases used are authentic, routine classroom situations that are not previously known to the learners.
- The cases consist of about 10-15 minutes of video recording.
- The video cases are integrated into a computer-supported learning environment and complemented by different kinds of additional instruction described in detail below.



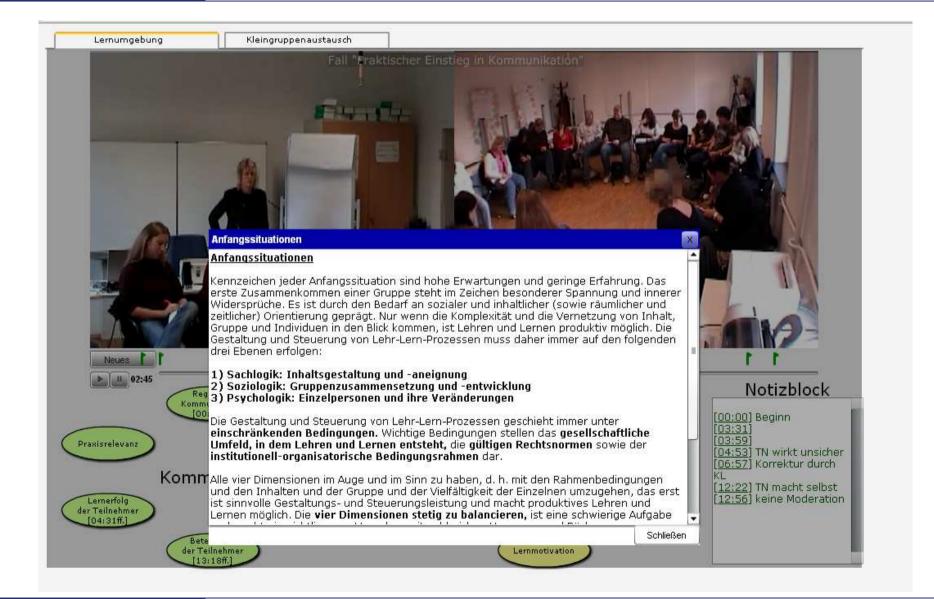
# **Learning Environment**













## **Central Research Question**

 How does computer-supported case-based learning influence the acquisition of competency to diagnose pedagogical situations?



## **Design of the Training Concept**

Test stage	Pre-test and orientation
Introduction	Introduction to working with cases Theoretical foundation of case-based learning
Pretest	Case-based pre-test for measuring analytical competency questionnaires on different control variables

Training period	Input and training
Input	Presentation of didactic theories, knowledge test
Training	Work on 3 training cases

Test stage	Post-test and reflexion
Posttest	Case-based post-test on analytical competency and knowledge test
	Control measures: questionnaires
Reflexion	Discussion about the case work in small groups
	Feedback
	Subjective yield of the training concept
	Action options for practice



# **First Findings Regarding Acceptance and Effect**

#### **Random Sample:**

- Eight training sessions with about 10-15 participants each (N=100)
- Adult educators and trainers but with different professional qualifications and acting in different fields

#### Methods:

- Questionnaires on different control an process variables to measure the acceptance of the training concept
- As well as logfile protocols regarding the use of the case-based learning environment, and audio-video records of the training case sessions in the small groups
- Analysis of the competency increase based on the written case analyses

 $\rightarrow$  Quantitative +qualitative score = total score of competency to diagnose pedagogical situation

• In addition two knowledge tests to evaluate the available knowledge before and after the training period



#### Feedback Regarding the Work with the Cases

- In the participant's opinion, the video cases illustrate everyday teaching/learning situations realistically (about 80 %)
- The participants think that they will be able to perceive teaching events in a more differentiated way thanks to the work with the video cases (76,9%)

#### Feedback Regarding the Use of the Concepts

- Presented concepts were considered helpful for analysing and interpreting the cases (69,2 %)
- The individual yield depended on the degree of the penetration of the theoretical concepts, about half of the group asked for further thematization including illustration by examples

#### Feedback Regarding the Use of Multiple Perspectives

- Presented perspectives were seen als helpful to take the sight of the actors in the cases (72 %)
- If perspectives were taken, this was more often the case for the perspective of the teachers (39,1 %) than for that of the learners (21,7 %)

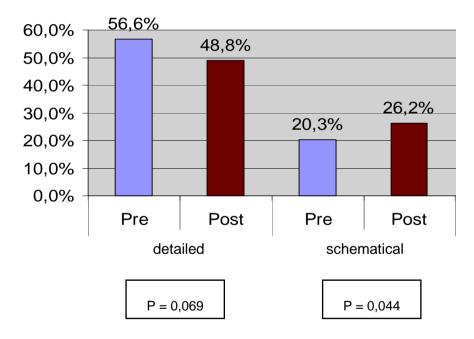


# Effects on the Competency to Diagnose Pedagogical Situations

- 3 <u>cognitive</u> components quantitativly und qualitativly measured:
- the ability to depict pedagogical situations
- the ability to adopt teacher and learner perspectives
- the ability to apply theoretical knowledge



## **Ability to Depict Pedagogical Situations**

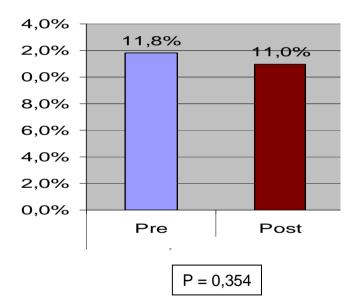


Middle proportional values related to line sums

- General trend towards detailed reproduction
- Light increase in schematic and categorical thinking, a little less single phenomena put into sequence



## **Ability to Take on Multiple Perspectives**

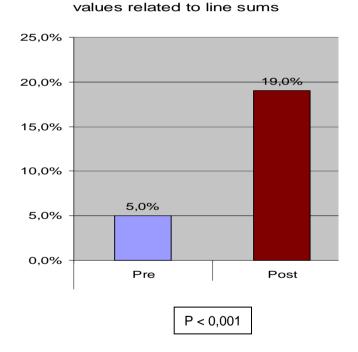


Middle proportional values related to line sums

- In total a low rate of perspective taking
- Tendential decrease in perspective taking in the posttest analyses compared with the pre-test analyses



## Ability to Apply Conceptual Knowledge



Middle proportional

- Increase in the amount of theoretical relations within the post-test analyses
- Huge number of relations to the concepts mediated within the training
- Fragment-like relations with low linking to the case



## To summarize one can say that

- Competency to diagnose pedagogical situations can be forstered by the way the learning with cases is conceived, especially in the dimensions of theory relations and case description, not so much regarding the adoption of multiple perspectives
- Learning with video-based cases can be used as a method to built a bridge between professional knowledge and professional skills and serve to improve the professionalism of teachers and trainers in lifelong learning processes



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# Thank you for your attention!