

DIALEKT – A Learning System

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> Outline

- The project DIALEKT
- A typical case: The Problem
- A typical case: The Task
- Approaches
- *Statistik interaktiv! in action*
- Results

> The Project: Current Partners

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Sponsorship

Verein zur Förderung eines
Deutschen Forschungsnetzes e.V.

> The Project: DIALEKT Products

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ODI

FU-Berlin:
Topic "**Marketing/Theory of diffusion**"
for pre-graduates



IRS

FU-Berlin:
Topic "**Finance / Investment strategies**"
for pre-graduates



Statistik interaktiv!

FU-Berlin / Uni Bielefeld / Uni Hamburg:
Topic "**Descriptive Statistics**"
for base studies

> A typical case: The Problem

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- Teaching and learning statistics
(students in 1st or 2nd semester)
- Traditional education is very formal
- Students see a gap between theory and practice
- Students are unable to apply their acquired statistical knowledge
- Students get lost during the courses

> A typical case: The Task

- Develop a digital interactive lecture in the field of descriptive statistics
- Close the gap between theory and practice
- Develop a tool for exploration and statistical work (for beginners)
- Try to motivate the students and catch their attention
- Find a solution as an addition to established education (synchronous, asynchronous)

> Approach: Some Design Principles

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- **Problem orientation**
(moderately constructivistic)
- **Emphasize on practice**
- **Use genuine features of computers**
(multimedia)
- (Common) **PCs as runtime environment**

> Approach: What is Knowledge?

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	Objectivism	Constructivism
Relevant knowledge is...	...objective.	...subjective and correspondingly diverse.
Learning is...	...oriented to results.	...oriented to processes.
Learning succeeds...	...by transferring teachers' knowledge to students directlyonly by learners' individual mental reconstructions.
Teacher's role	Instructor / lecturer / objective authority	Coach / mediator / individual
Learner's role	Adopter of transferred knowledge, internalisation of external reality	Self-responsible researcher for individual recognition and knowledge

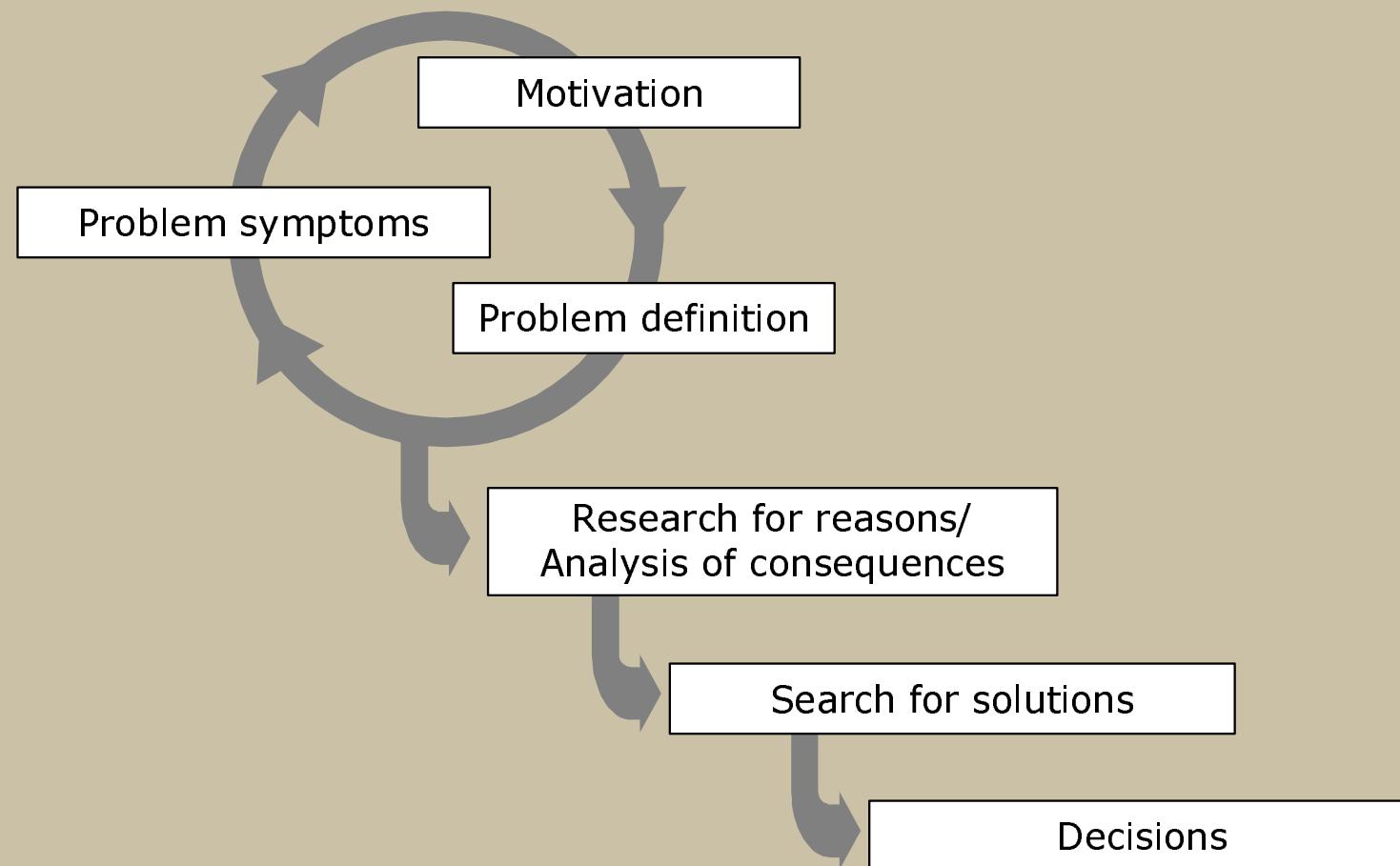
> Approach: Options For Use

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- Options for face-to-face education
Exploration, discussions, group work,
coached practices
- Options for autonomous learning
Investigations, references, visualisation,
inductive exercises
- Options for collaborative learning
Learners as authors, exchange of „knowledge“,
updating content

> Approach: Problem Orientation

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Today's typical learning environments:

- **additional**
traditional lectures and exercises
+ **volunteering** in a
multimedial tutorium

- **replacing**
dedicated lecture to cover theoretical aspects
+ **compulsory** participation
in the DIALEKT sessions (tutoriums)

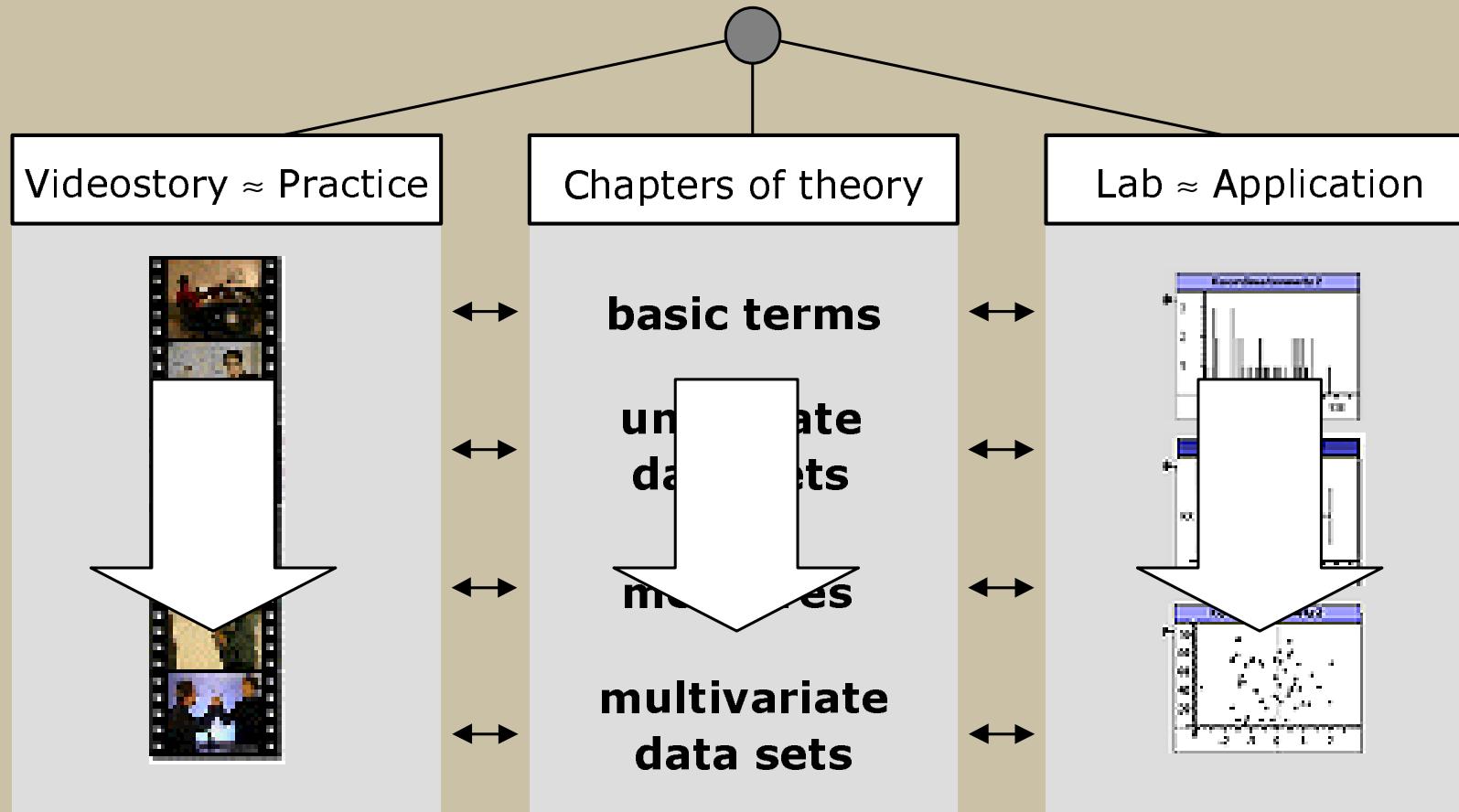
> *Statistik interaktiv!* in action (2)

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start program ...

> *Statistik interaktiv!* in action (3)

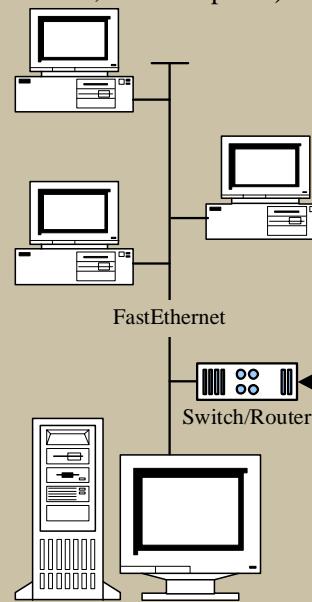
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> *Statistik interaktiv!* in action (4)

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Multimedia pool
(10 PCs; lokale Installation: teils CD-ROM, teils Festplatte)



Lecture server

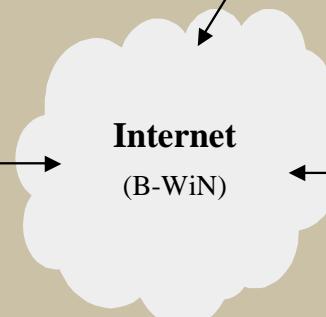
(Replikation aus Berlin, Installationsquelle für den lokalen Pool)

Bielefeld

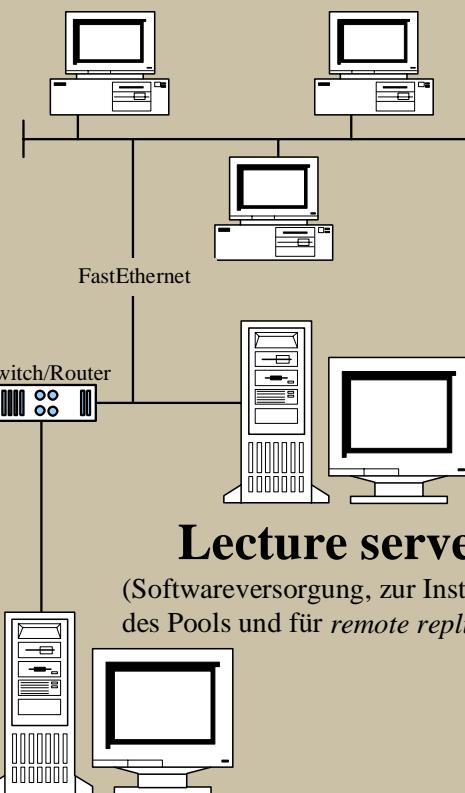
„Free learner“
(Installation von CD-ROM; aktuelle Infos via Internet)



ISDN/analog



Multimedia pool
(20 PCs; lokale Vollinstallation auf Festplatte vom Server off-peak)



Lecture server

(Softwareversorgung, zur Installation des Pools und für *remote replication*)

Berlin

Web practice center

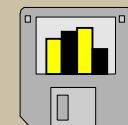
(Kursbegleitung, Bereitstellung von Aufgaben und Musterlösungen, sowie technischen Informationen und Updates bei Bedarf)

> *Statistik interaktiv!* in action (5)

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Handing over the
electronic scenario

Examination in
front of the
computer



Face-to-face
examination

Handing over a
written report



> Questions & Challenges (1)

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⇒ Change of paradigms !?

If yes:

⇒ Thinking about new curricula !

> Questions & Challenges (2)

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- Commitment: establishing of methods
Didactics for authors, teachers, students
- Commitment: establishing new learning models in the organisations
Faculties, teachers, students
- Establishing productions
KSF: Productivity, use the computers' original features
- Establishing environments for use
Contents' completeness ↔ Number of users

> Some Selected Results

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- Face computer based exams
- Teach the teachers to use eLearning efficiently
- Learners must learn to learn digitally
- Coordinate traditional and computer based teaching and learning
- Faculties have to commit to eLearning (or save a lot of money)

> Contact

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