New forms of bridging theory to practice (and the other way around) in internship

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#### Introduction

- Dual learning programs, combining:
  - Studying at the educational institute
  - Learning from practice at the workplace

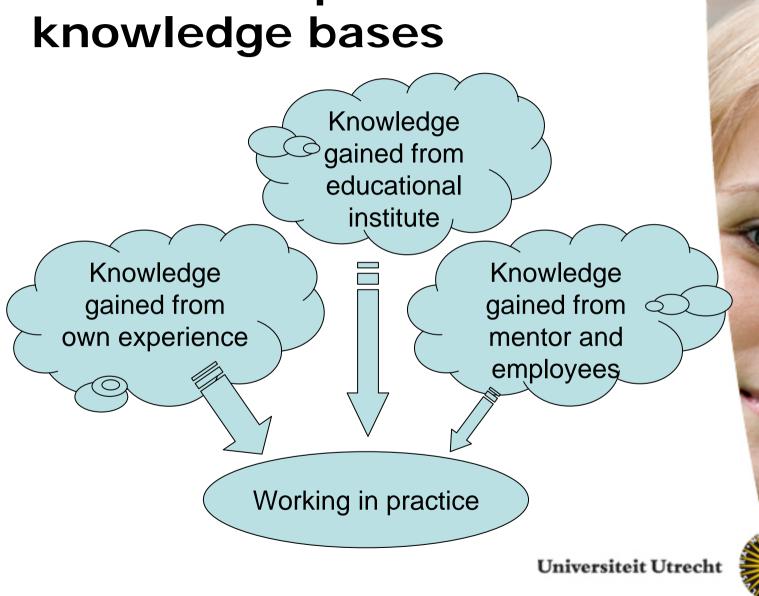


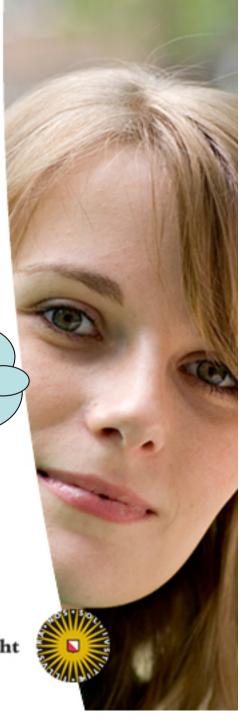
#### Introduction

- Three important sources to learn from:
  - Own practical experiences
  - Practical knowledge of mentor and other employees
  - 'Theory' offered at the educational institute









An integrated knowledge base

Knowledge gained from own experience

Knowledge gained from educational institute

Knowledge gained from mentor and employees

Working in practice

# Main learning models in dual learning programs

- Case-based learning
- Concern-based learning
- Competency-based learning
- Learning communities
- Scholarship learning
- Informal workplace learning
- Research-based learning
- Educating in partnership



# How do students learn in dual learning programs?

- Different sources to learn from ('subject matter'):
  - 'Theory' of the institute
  - Own practice experiences
  - Practical knowledge of the mentor and other employees

How do students combine these sources?

# Patterns in student teachers' learning

Oosterheert et al. (2002):

- All student teachers are application directed, but in different ways:
  - -Survival oriented
  - Reproduction oriented
  - Meaning oriented



# Deep processing in student learning

Zanting et al. (2003):

- Deep processing here is:
  - Explicate one's own beliefs based on practical experiences, elicit the mentor's practical knowledge, study the 'theory'; &
  - Compare these three information sources; &
  - Draw conclusions for one's own actions / personal theory.



#### Deep processing and selfregulation in students' learning

Mansvelder-Longayroux ea (2007):

- Most portfolio-fragments refer to:
  - Describing an event
  - Evaluating that event ("that went well, wrong, bad, cool, ..")
- Only few fragments refer to, for example, analyzing, diagnosing, critical processing, reflecting of/on those events (= meaning directed)



# Nature of self-regulated student learning

Endedijk et al. (2007):

- Different strategies students use to regulate their learning, e.g.:
  - Learning by doing
  - Learning by interaction
  - Learning by listening/reading
  - Learning by applying theory
  - Learning by reflecting

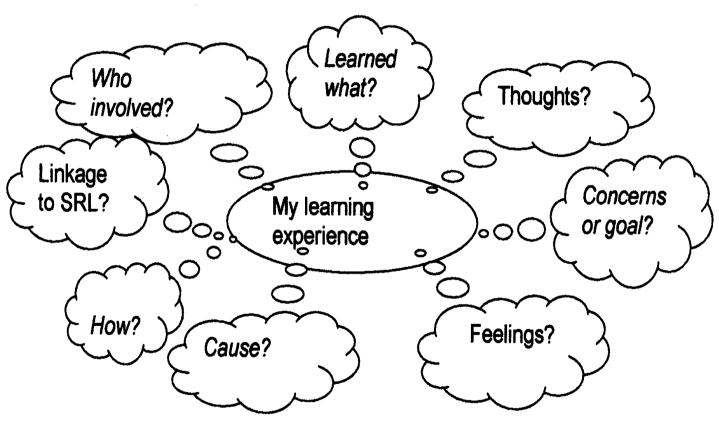


# Study on experienced teachers' learning in professional practice

- 100 teachers were followed for a year in their learning experiences
- Through digital learning logs (6 a year)
- In the context of the introduction of active and self-regulated learning in the classroom



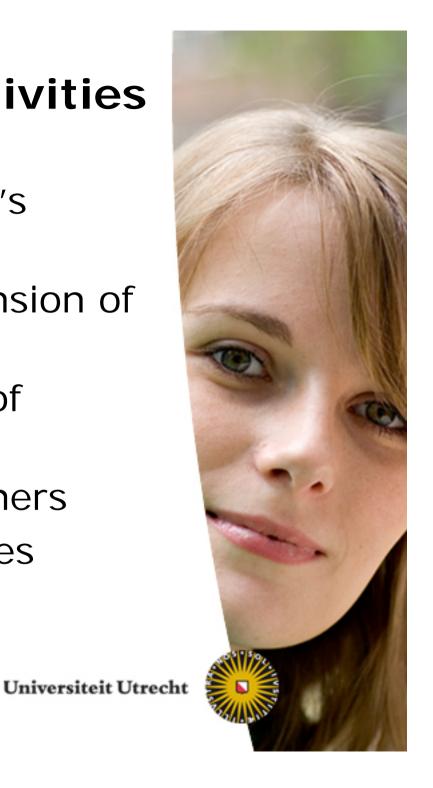
### **Digital learning logs**





#### Reported learning activities

- Experimenting within one's theory of practice
- Experimenting with expansion of one's theory of practice
- Developing one's theory of practice
- Learning by observing others
- Thinking about experiences
- Avoiding learning
- Experiencing friction



### Patterns in teachers' learning?

Forms of teacher learning in professional practice:

- Performance directed
- Meaning directed
- Undirected



#### Conclusions

- What kind of learning to foster in vocational education?
  - Meaning directed learning
  - Deep processing of experiences and subject matter
  - Self-regulation
  - Developing one's personal theory of practice
  - Building an integrated knowledge base



#### Conclusions

- Contextualize learning/working experiences (immersion)
- Decontextualize from learning/ working experiences (reflection)
- Instructive work
- Different partnership models between school and company
- Foster teacher learning to foster student learning

