




Teacher Profiles for Planning Informatics Lessons

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ISSEP 2014 - Istanbul




Didaktik | der Informatik



Structure

- Teachers' Subjective Theories
- The Research Question
- The Sample
- Evaluation Steps
- Profiles of Informatics Teachers
- Conclusions and Future Work

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Teachers' Subjective Theories

- In Informatics the planning of lessons on a specific topic differs considerably from teacher to teacher
- The differences are influenced by teachers' different subjective theories of Informatics
- Subjective Theories: individual cognitive structures of self-and worldviews that have function of explanation and prediction

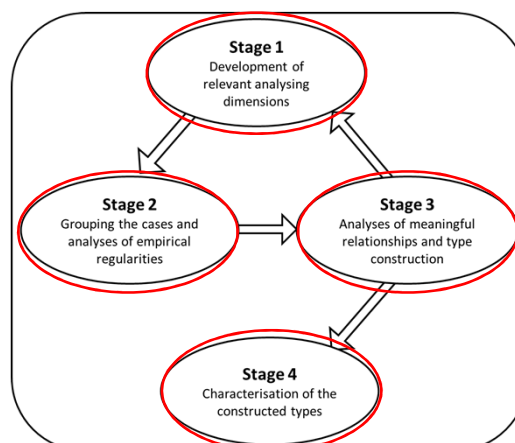
The research questions

- What are teachers' subjective theories on designing computer science learning environments?
 - Which subjective theories guide teachers' thoughts while structuring lessons?
 - What importance do students' perspectives have in their planning for these lessons?

The Sample

- 15 teachers
 - 3 female /12 male
 - different school types
 - the youngest was 27 and the oldest 57
 - teaching experience between 2 and 30 years
 - achieving the qualification to teach Informatics was very different.


Evaluation Steps




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The Building of Profiles

- Dimensions:
 - Teacher's role
 - Student's role
 - The teaching methods
 - The choice of contents
 - Intended teaching objectives


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Promotionsprogramm
Fachdidaktische Strukturierung

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The Profiles

- The Self-Confident Expert
- The Student-Oriented Manager
- The Creative Pragmatist
- The Inquisitive Collector
- The Prudent Newcomer


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Promotionsprogramm
Fachdidaktische Strukturierung

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The Self-Confident Expert

- Confidence in one's own knowledge and expertise
- High degree of professional and didactic competence
- The teaching-role is to guide and control the learning process
- Students work on short and set assignments
- The learning content shows the nature of Informatics



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The Student-Oriented Manager

- Strong confidence in students
- Teachers' role is to attend the students' learning process without restricting their independence
- Students are totally independent
- The teaching content is determined by the students' wishes


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The Creative Pragmatist

- Their teaching focus on problem-oriented learning
- The teachers' role is to find fascinating methods and tasks which will motivate the students.
- The students discover the contents through the tasks they are given.
- The contents are to be the basis of Informatics

The Inquisitive Collector

- Great confidence in researchers and specialists
- The teachers' role is to use good teaching materials and to be informed about new didactic ideas
- The students learn a lot from these good teaching materials
- The contents are determined by the in-service teaching courses.

The Prudent Newcomer

- A prudent selection of contents and methods
- The teaching role is to know about students conceptions and design the lessons according to them.
- The students are motivated to reconsider their conceptions
- The contents are chosen from the curriculum

Conclusions and Future Work

- Profiles
 - A first insight
 - Helpful for designing teacher trainings
 - Teacher training has to address all these profiles
- Compare with existing didactic concepts
- Create guidelines for Informatics teacher trainings

Thank you for your attention!

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