

Pedagogical benchmarks:

**Does the homo zappiens
need anything more than
just good teaching?**

Theo Wubbels
Utrecht University



What can I do?



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Theo Wubbels, Utrecht University, The Netherlands
Professor of Education, Associate Dean, Faculty of Social and Behavioral Sciences



Pedagogical benchmarks: Does the homo zappiens need anything more than just good teaching?

Wim Veen used the term “Homo Zappiens” to typify a new student generation. He suggested that this generation possesses certain living and learning behaviours that are fundamentally different from those of previous generations. Regardless of whether this is true, teachers have the obligation to insure that their teaching fits or is adapted to possible changes in the students’ characteristics and to advance students’ learning so that learning can be achieved as effectively and as efficiently as possible. In the 1980s my research group studied how to adapt physics education to the needs of females and developed teaching materials that were judged more attractive by them than existing materials. We observed classes and administered questionnaires on students’ motivation and preferences for teaching. More recently we investigated how teachers can build good relationships with students who come from ethnic minorities. Many hours of video tapes of classes in many subjects and many hours of teacher interviews were analyzed. In the studies we concluded that catering to the needs of specific students required teaching strategies that every good teacher possesses, but which, unfortunately, many teachers do not always appropriately use. Good teaching for specific purposes did not appear to be very different from generic good teaching.

Nowadays, with students who some see as being born with computers in their hands, the question has become: Does the homo zappiens need more than just good teaching? When one observes classrooms, it is clear that students have changed over the years while in many countries the way courses are taught has not changed with the same speed nor in an adequate way. Teacher talk still is the dominant format in many secondary classrooms. Classroom activities almost never invite students to use their capacity for multitasking. Fortunately, however, we are beginning to see more and more classrooms where teaching has been adapted to the many technological tools and new student skills and characteristics that are currently available / present. The questions are, thus: Do teachers who use information and communication technologies have dramatically different ways of teaching or pedagogical relations with their students? Does their way of teaching require a new and different teaching competence?

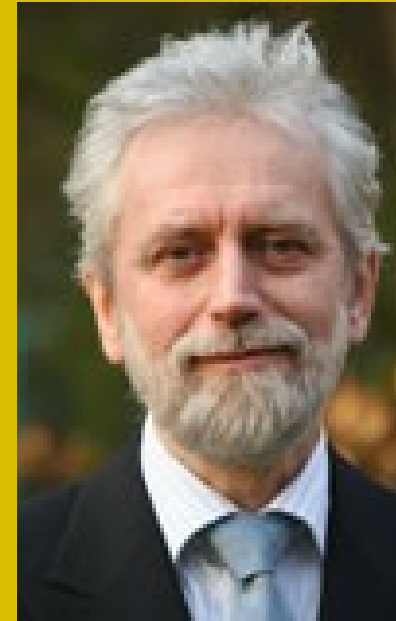
Reviewing the literature on effective teaching and teacher education and studying exemplary teaching and teacher education programs yields some ingredients for answers to these questions. This keynote will present benchmarks for pedagogical use of information and communication technologies in modern teaching. A comparison of these benchmarks with information about generic teaching competence will shed light on the answer of whether a hunt for new teachers is necessary.

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Homo Zappiens

Growing up in a digital age



Wim Veen
and Ben Vrakking



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Homo Zappiens

The generation

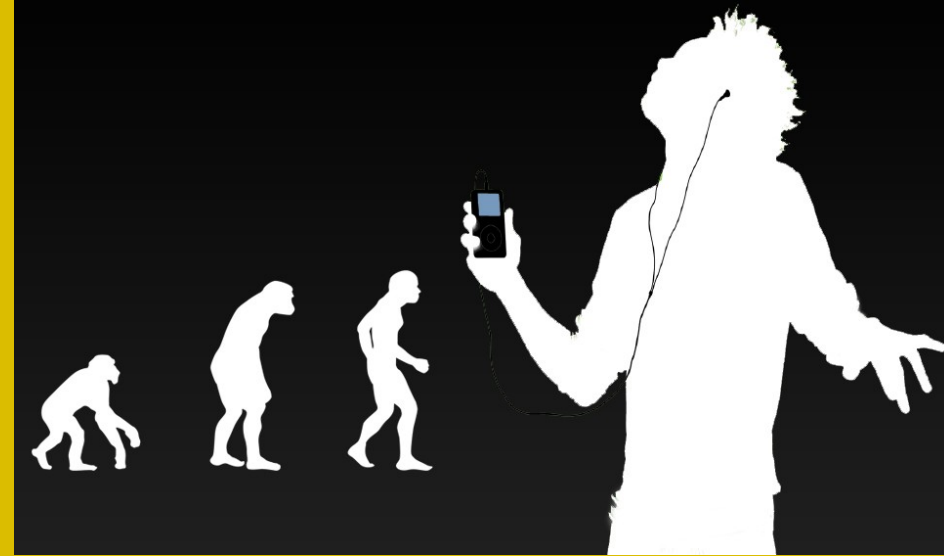
- never reading manual
- playing games

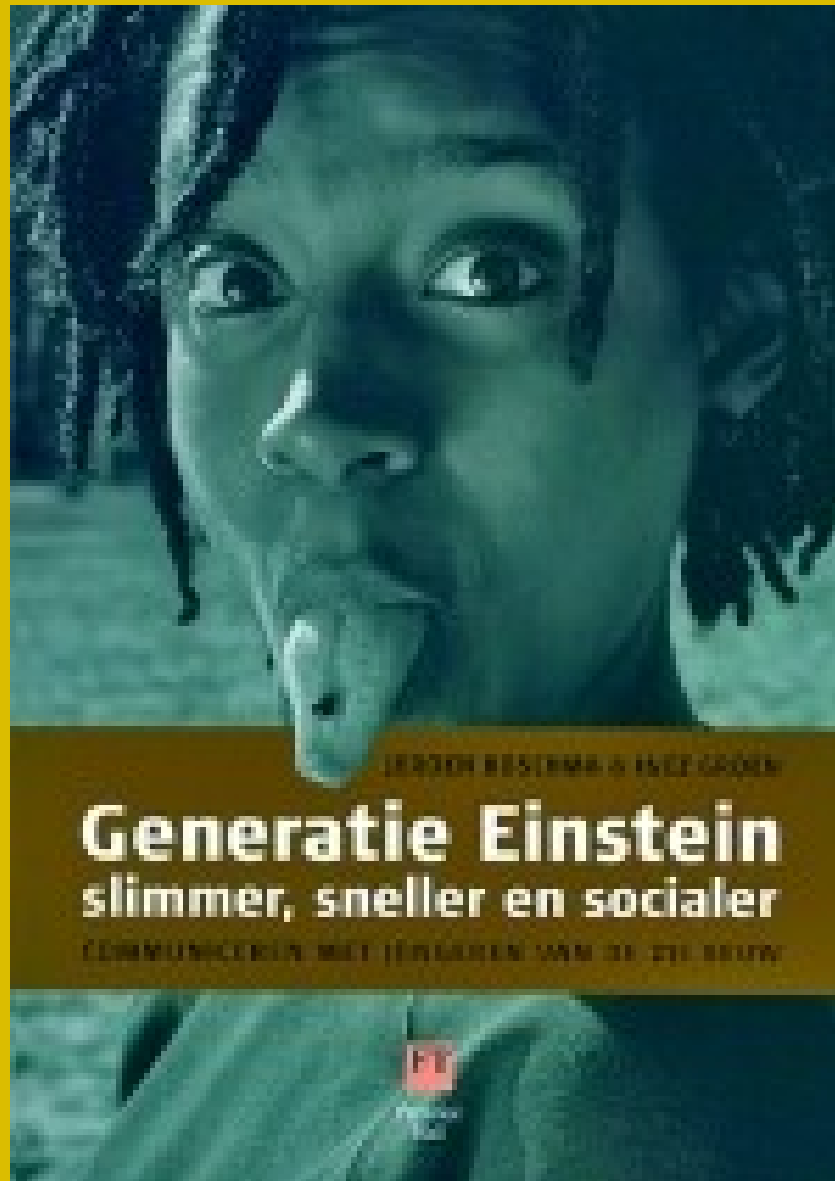
Grand Theft Auto, World of Warcraft, PS2,
Xbox, LAN Parties

- communicating 24/7

Via SMS, MSN, chat rooms, cell phones

- integrating f2f and virtual friends
- preferring cell phone rather than news paper





Generation Einstein

Smarter
Quicker
More social

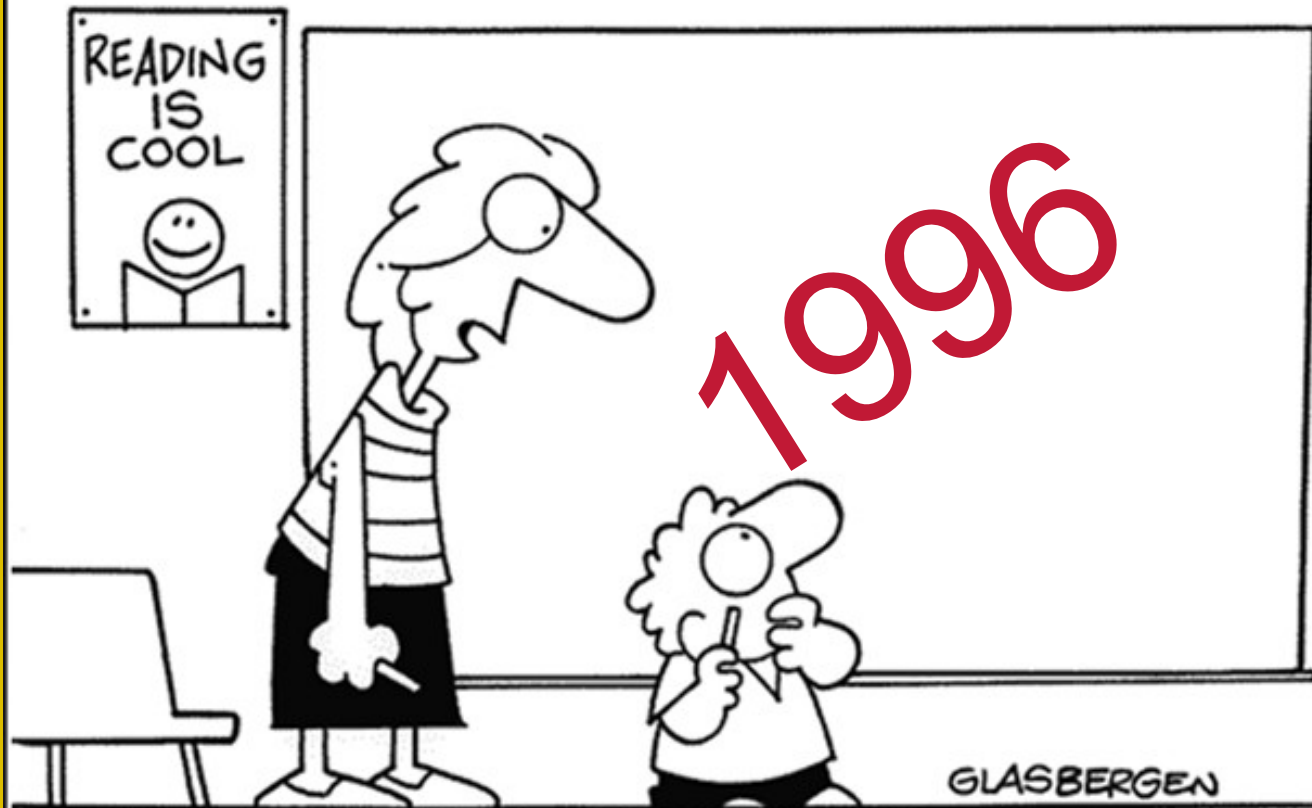
New millennium learners



Universiteit Utrecht

Pedró 2008

Copyright 1996 Randy Glasbergen. www.glasbergen.com



“There aren’t any icons to click. It’s a chalk board.”



New millennium learners

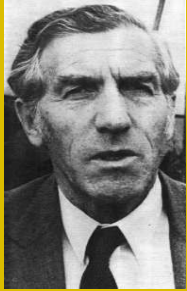
- Solid evidence positive influence
 - Visual spatial abilities, Memory, Multitasking, Non-verbal intelligence
- Varied evidence
 - Social values attitudes
- Solid evidence negative influence
 - Aggression, hostility
- Unknown
 - Information processing, reflective critical thinking, creativity, etc.



Studying teaching from an interpersonal perspective



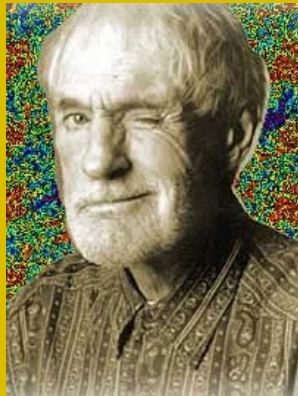
Theoretical Background



Paul Watzlawick

1967 - Watzlawick, Beavin, & Jackson

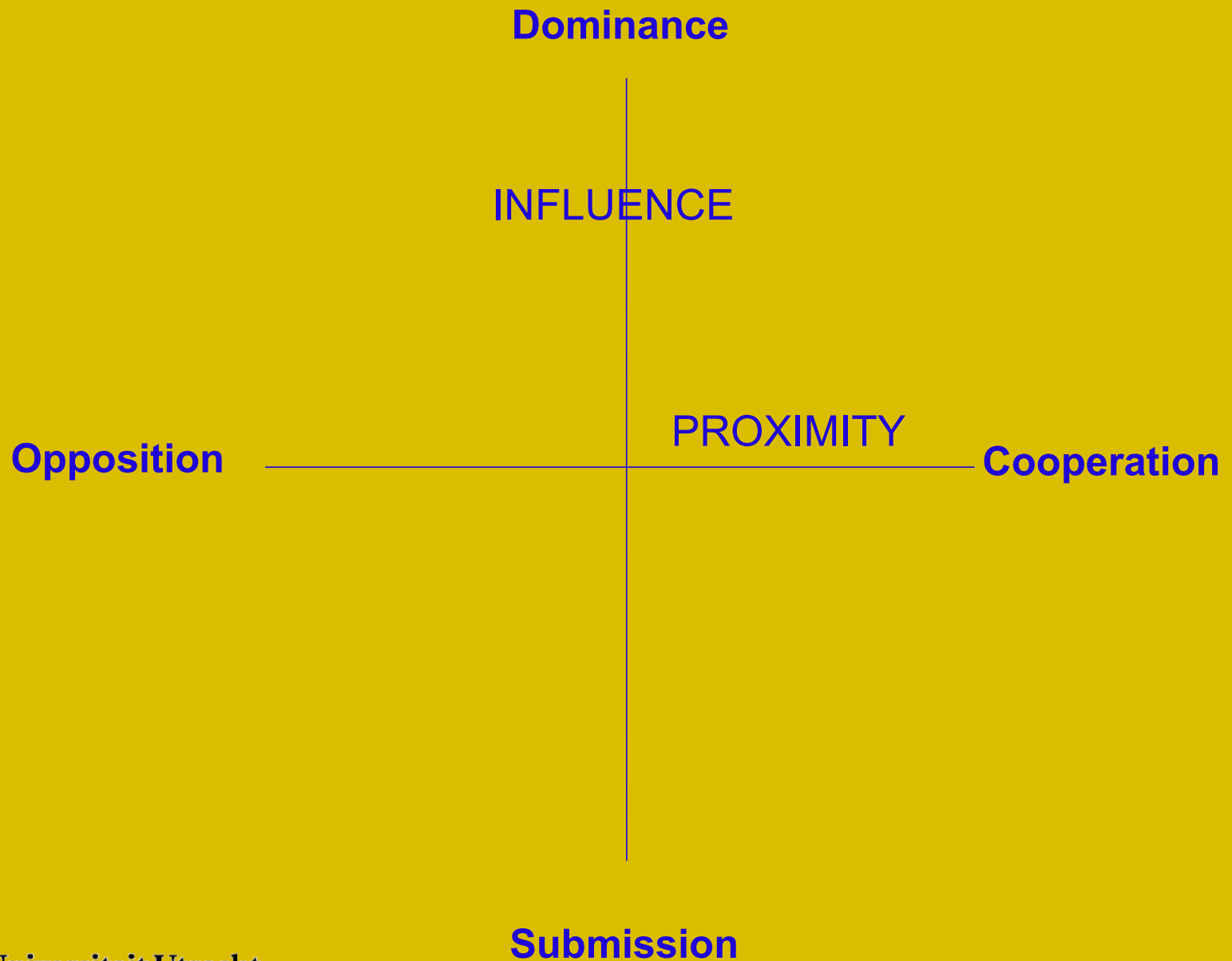
- The pragmatics of human communication



Timothy Leary

1957 – Timothy Leary

- Interpersonal Diagnosis of Personality
- 2 dimensions in communication
 - hostility-affection
 - dominance-submission





Leadership
Notice what's happening, lead, organize, give orders, set tasks, determine procedures, structure, the classroom situation, explain, hold the attention.
or considerate manner, be able to make a joke, inspire confidence and trust



Several instruments

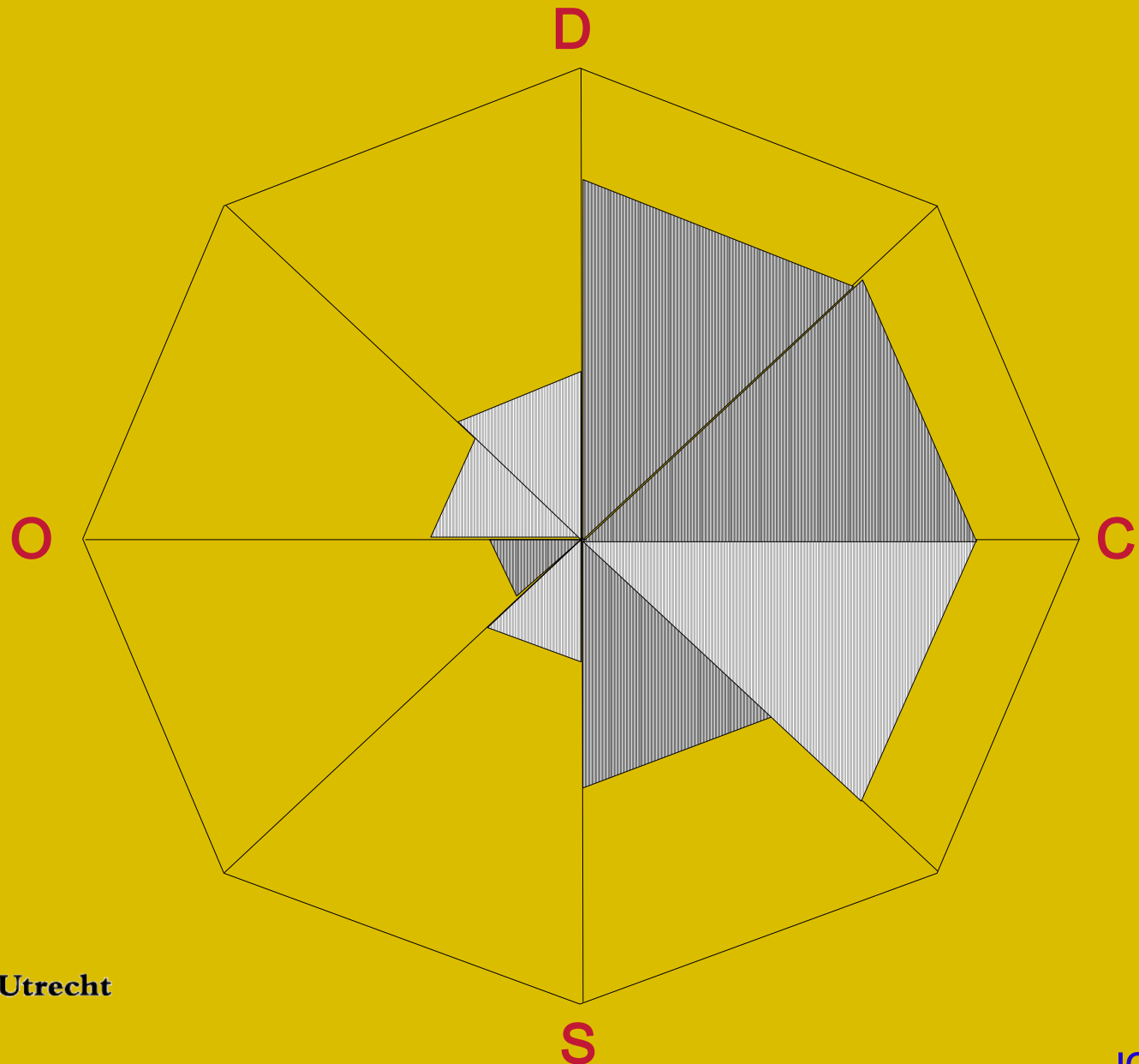
Questionnaire on Teacher Interaction

QTI

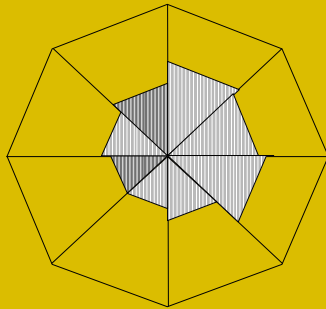
- ◆ 48-77 questions; 6-10 per sector
- ◆ Over twenty languages
- ◆ Reliable and valid



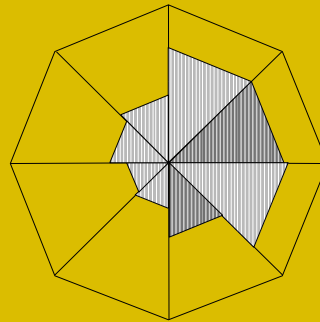
Teacher interpersonal profile



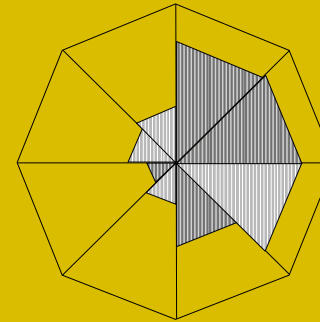
Typology teacher-student relationships



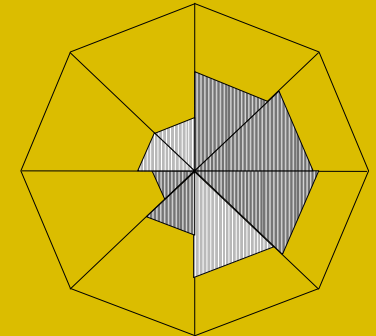
Directive



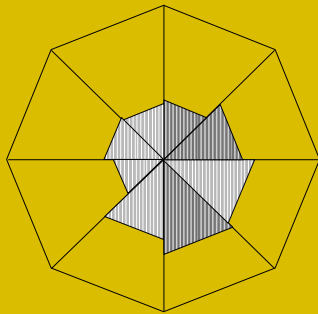
Authoritative



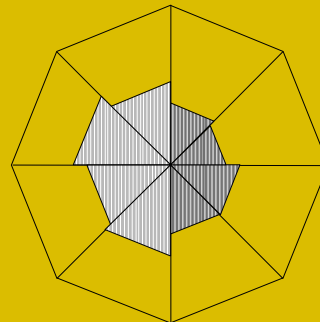
**Tolerant &
Authoritative**



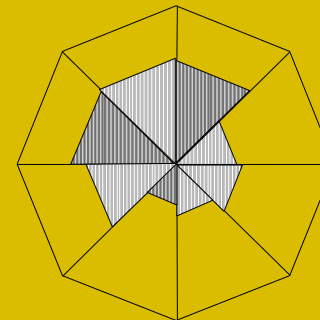
Tolerant



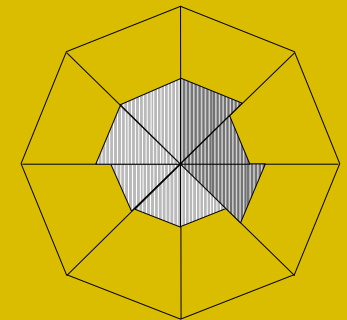
Uncertain/tolerant



Uncertain/aggressive



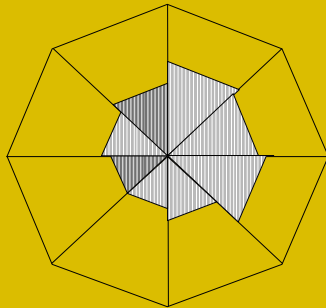
Repressive



Drudging

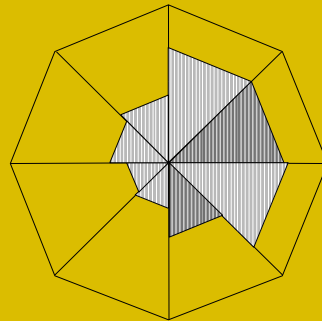
Distribution (%)

19



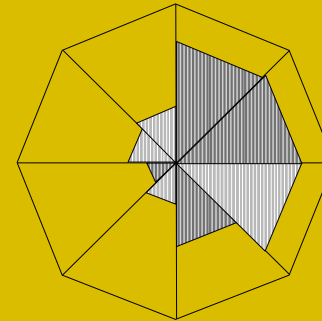
Directive

23



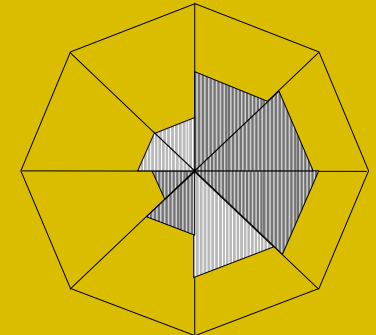
Authoritative

14



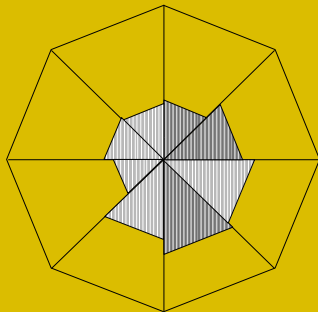
Tolerant &
Authoritative

19



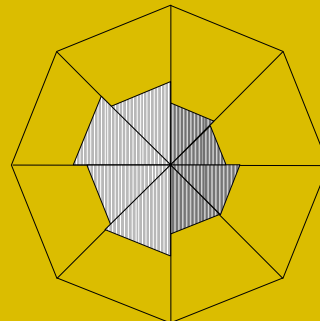
Tolerant

9



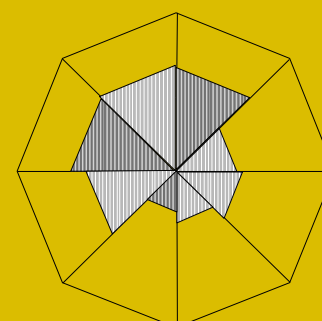
Uncertain/tolerant

3



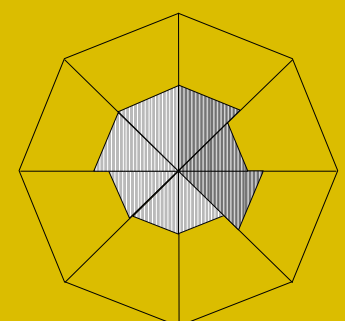
Uncertain/aggressive

5



Repressive

8



Drudging



Studying teaching from an interpersonal perspective

Two examples of studies



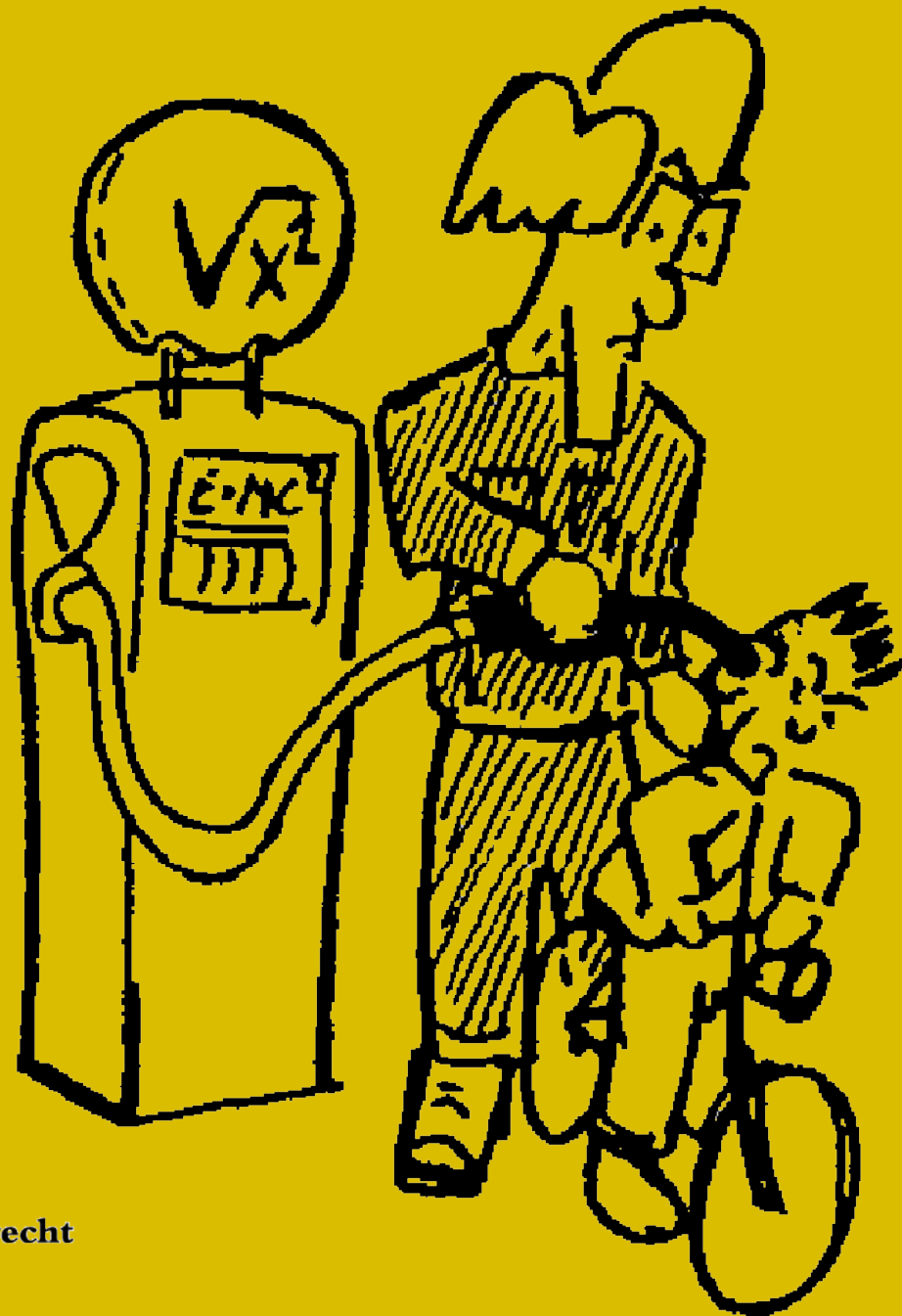
Example 1

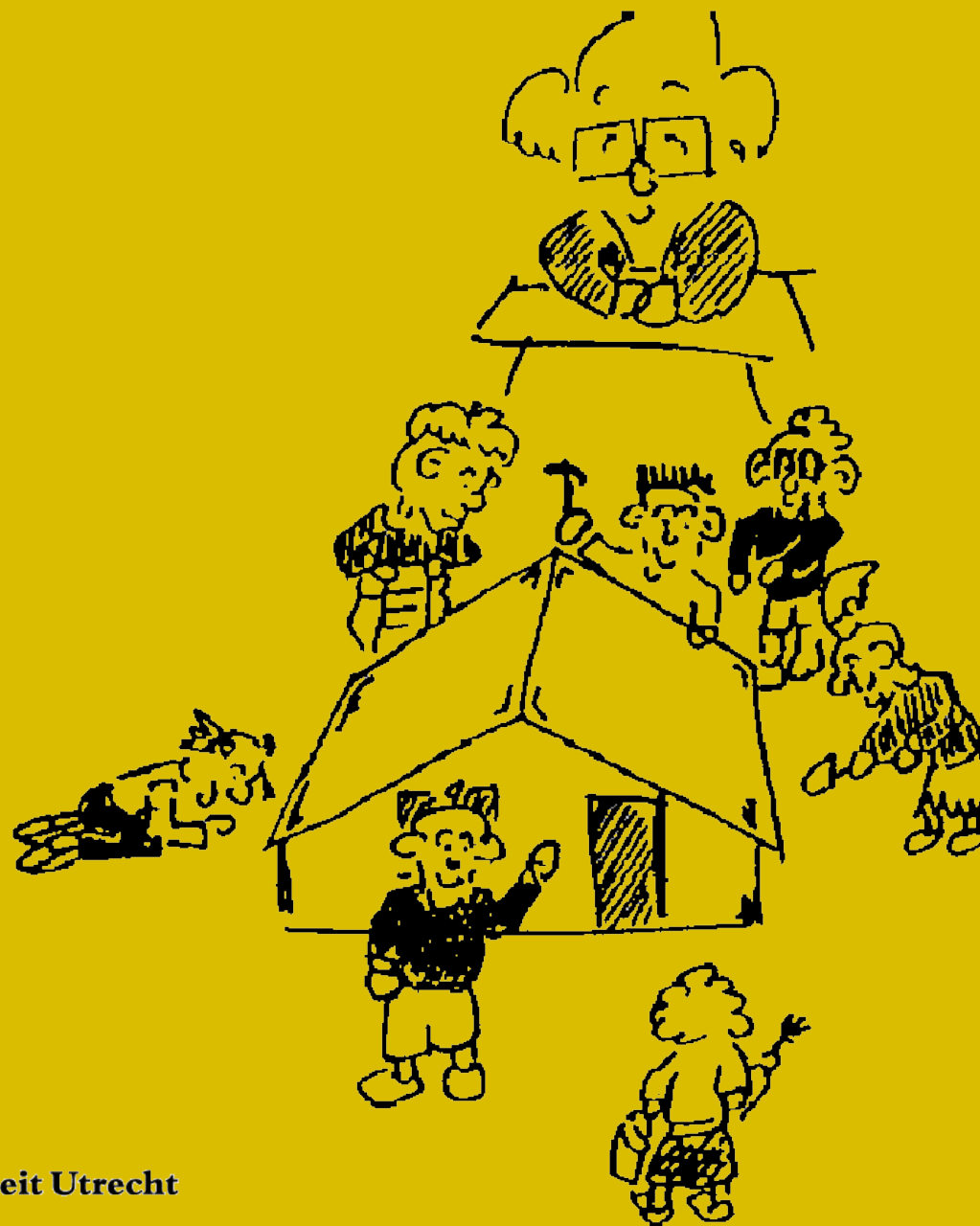
Physics teachers

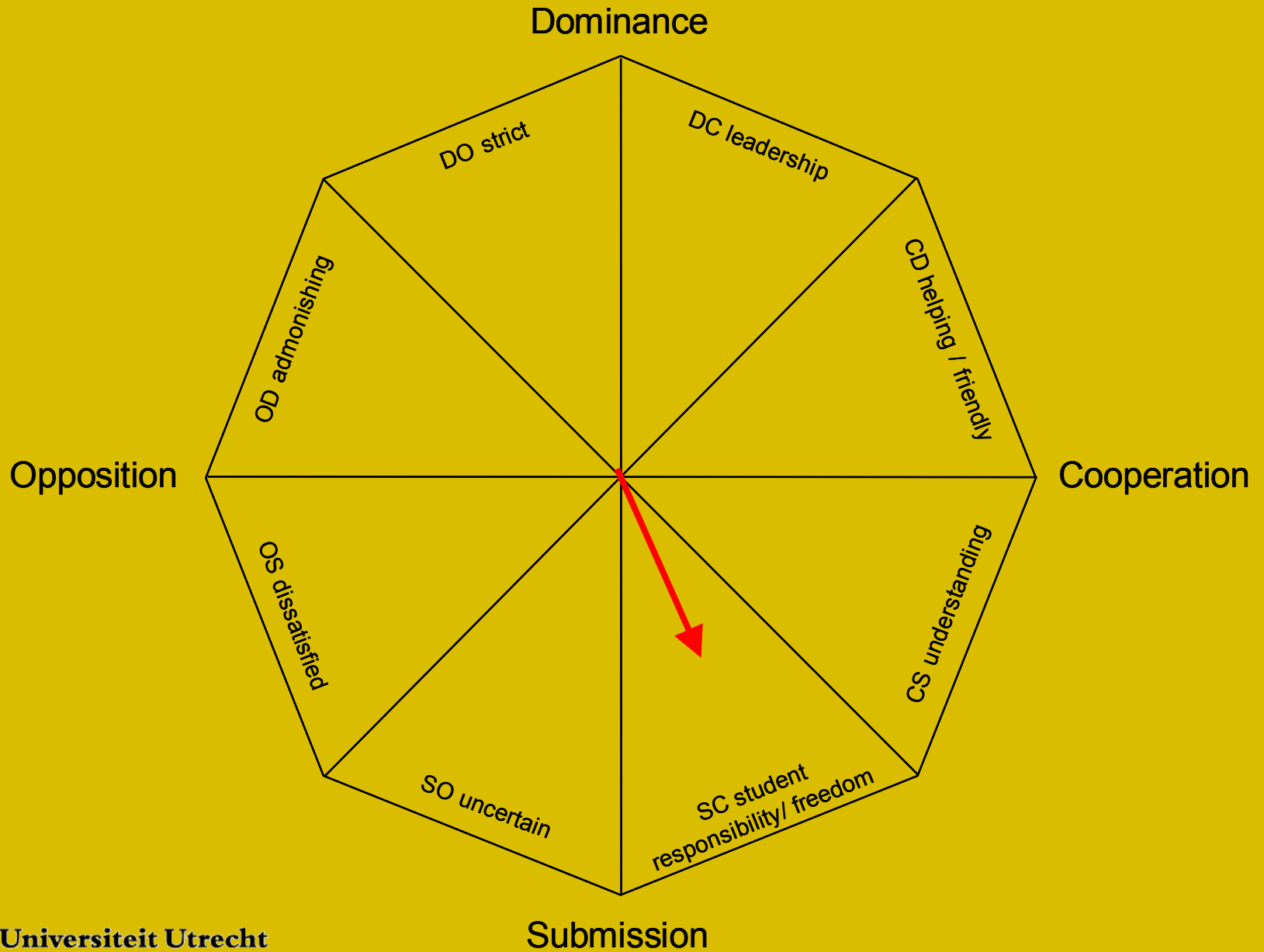
1984 – 1993 (-2007)

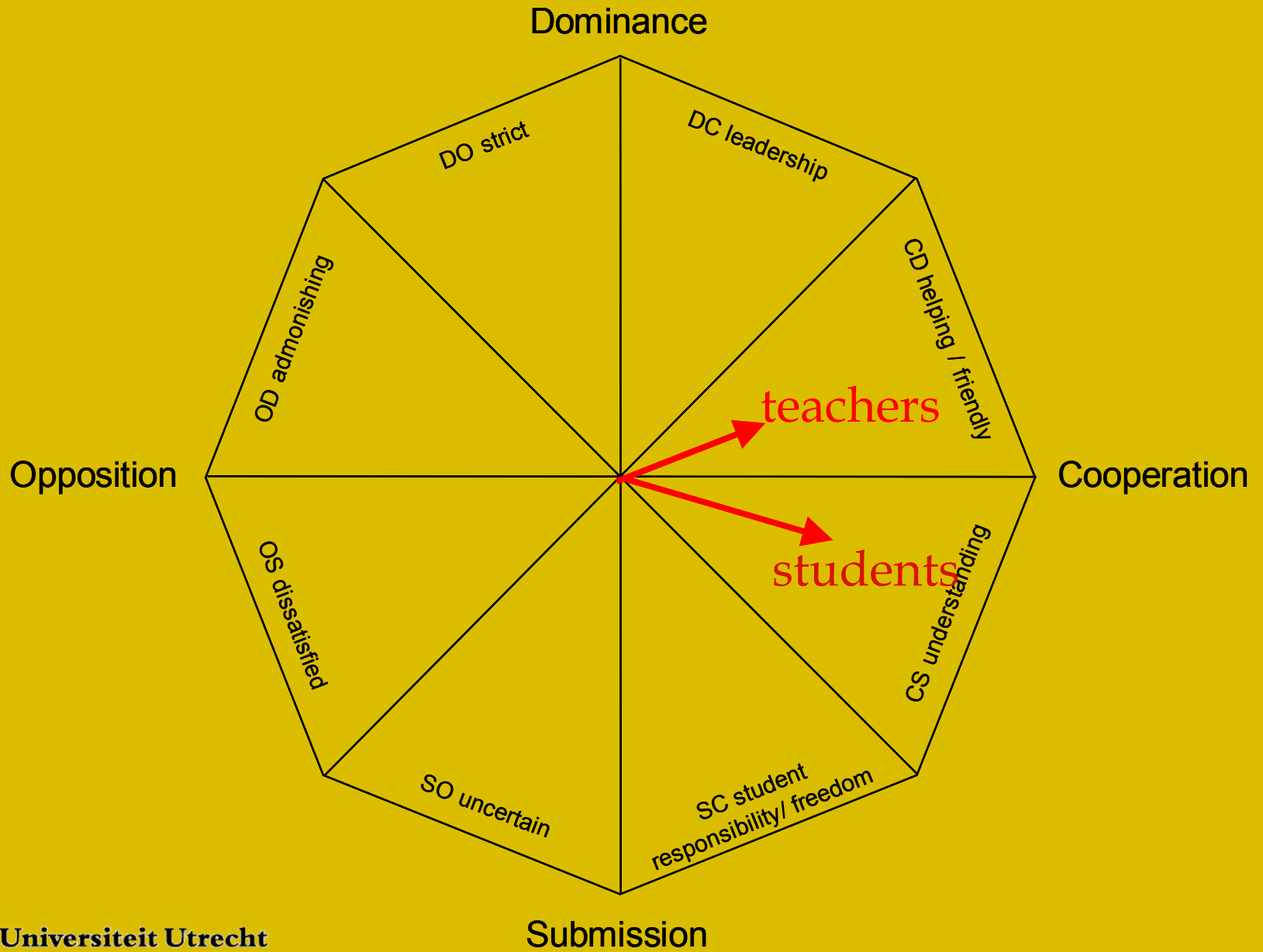
- Did their relationship with students change?









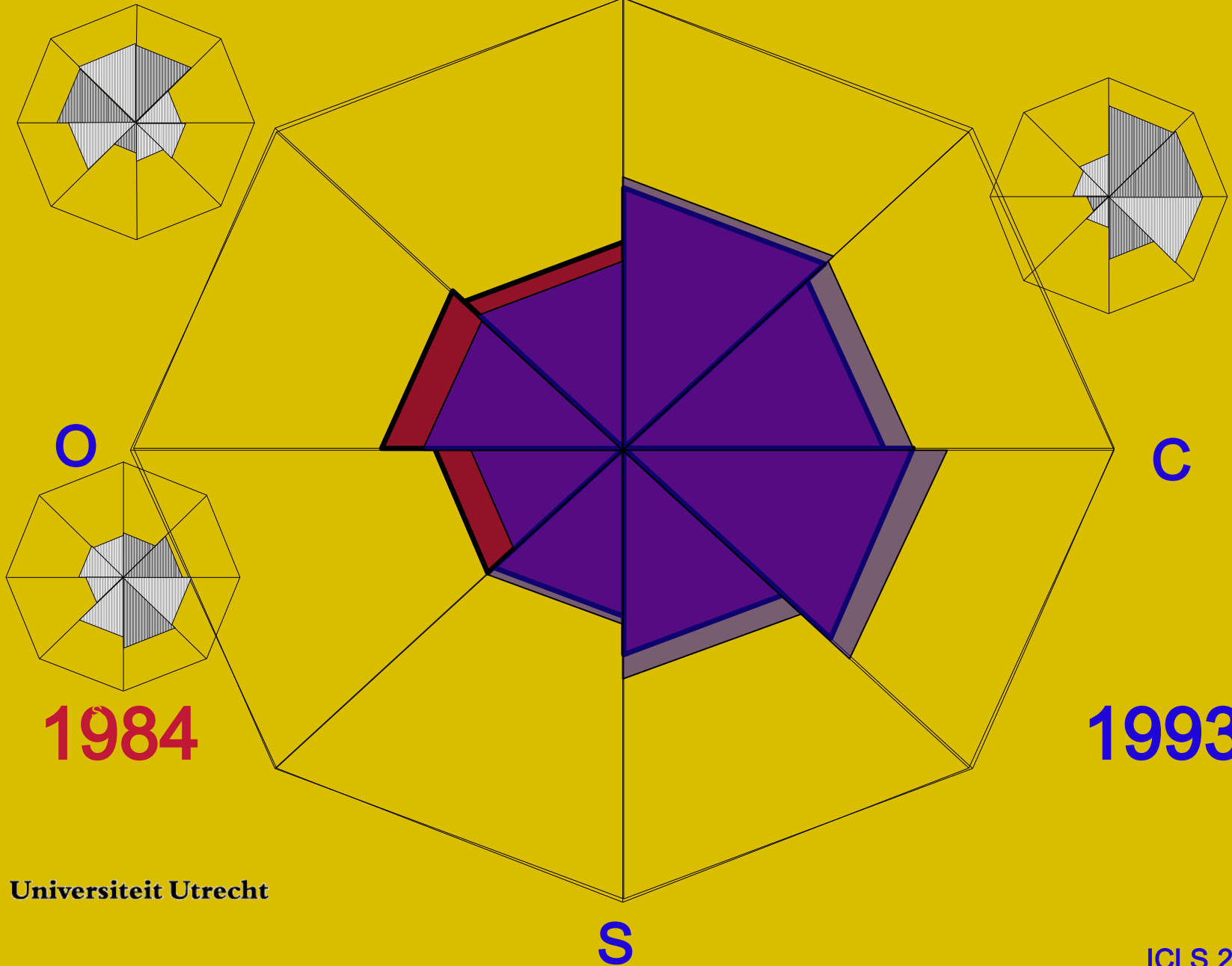


Example 1

Physics teachers

1984 – 1993 (-2007)

- Did their relationship with students change?
- Yes, but



1984

1993



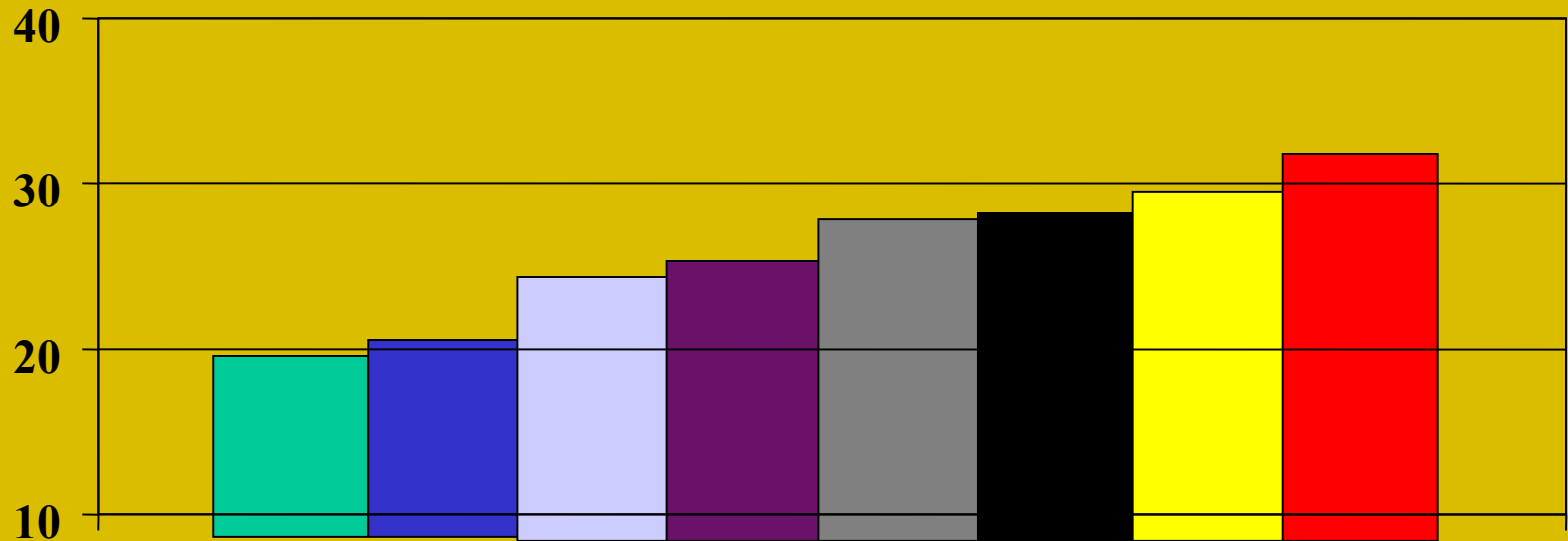
Example 2

Promoting active learning and teacher-student relationships

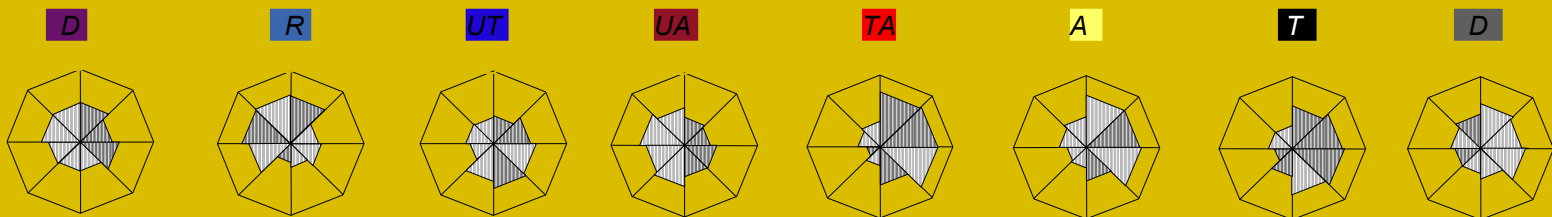
- QTI
- Questionnaire on teacher promoting student active learning; 10 items
 - Promotes active thinking
 - Values student comments
 - Promotes student independence
 - Lets us think with our peers



Promoting student active learning



- uncertain/aggressive
- uncertain/tolerant
- repressive
- drudging
- directive
- tolerant
- authoritative
- tolerant and authoritative



Result

The more activating learning
the more dominant & cooperative
teacher-student relationship



Studying teaching from an interpersonal perspective

Two examples of studies

These studies and
teaching the homo
zappiens



Changing environment

Changing education

- Wikis
- Blogs
- Games
- Ipods
- Podcasts
- 51 weeks
-



We need new millennium teachers

- Student teachers are not new millennium teachers
- Teacher education does a poor job



Research on Teacher Education

ICT in Education:

Two worlds living apart



Pedagogical benchmarks



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Kirschner, Wubbels & Brekelmans 2008

Benchmarks for aims

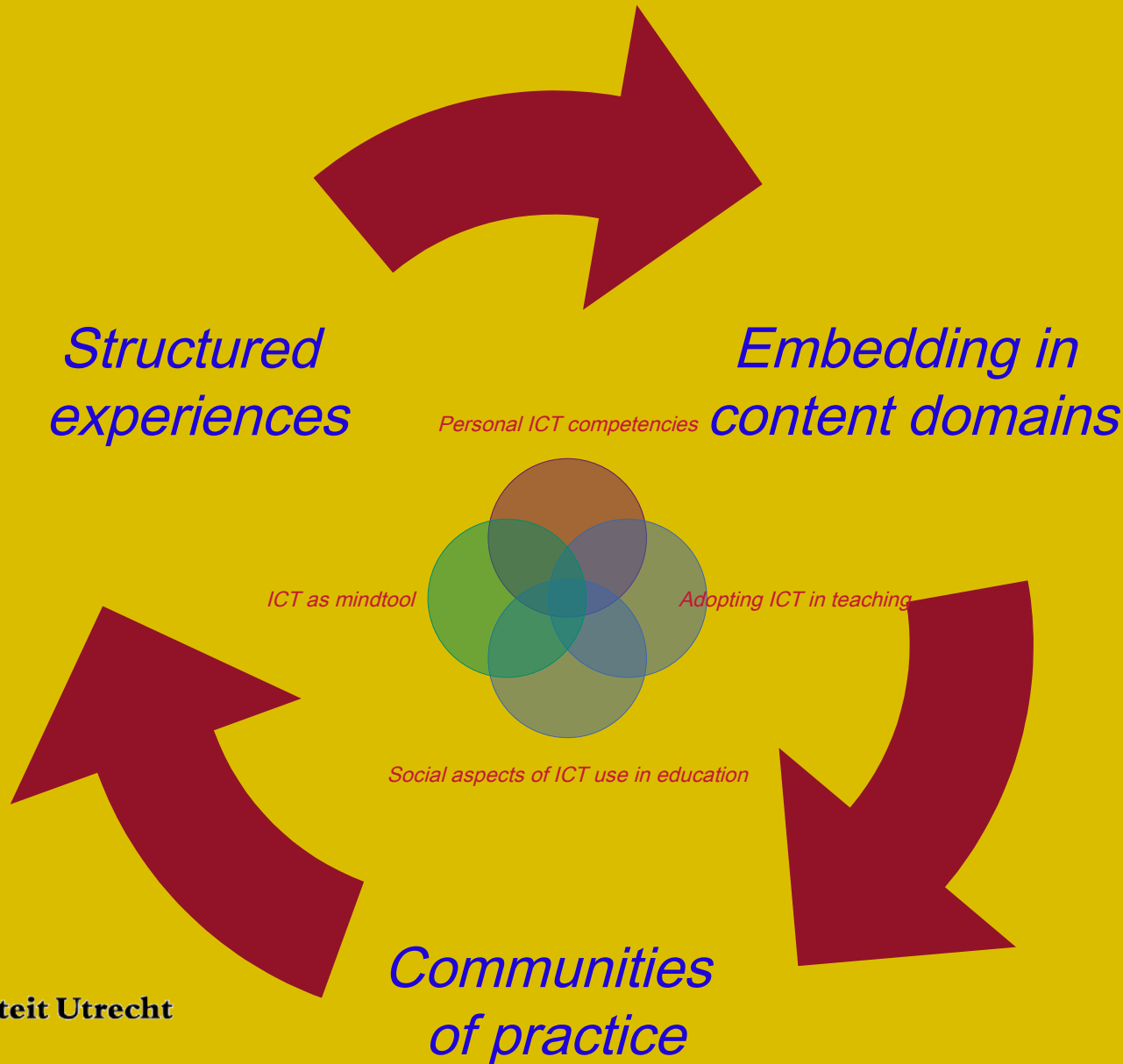
Personal ICT competencies



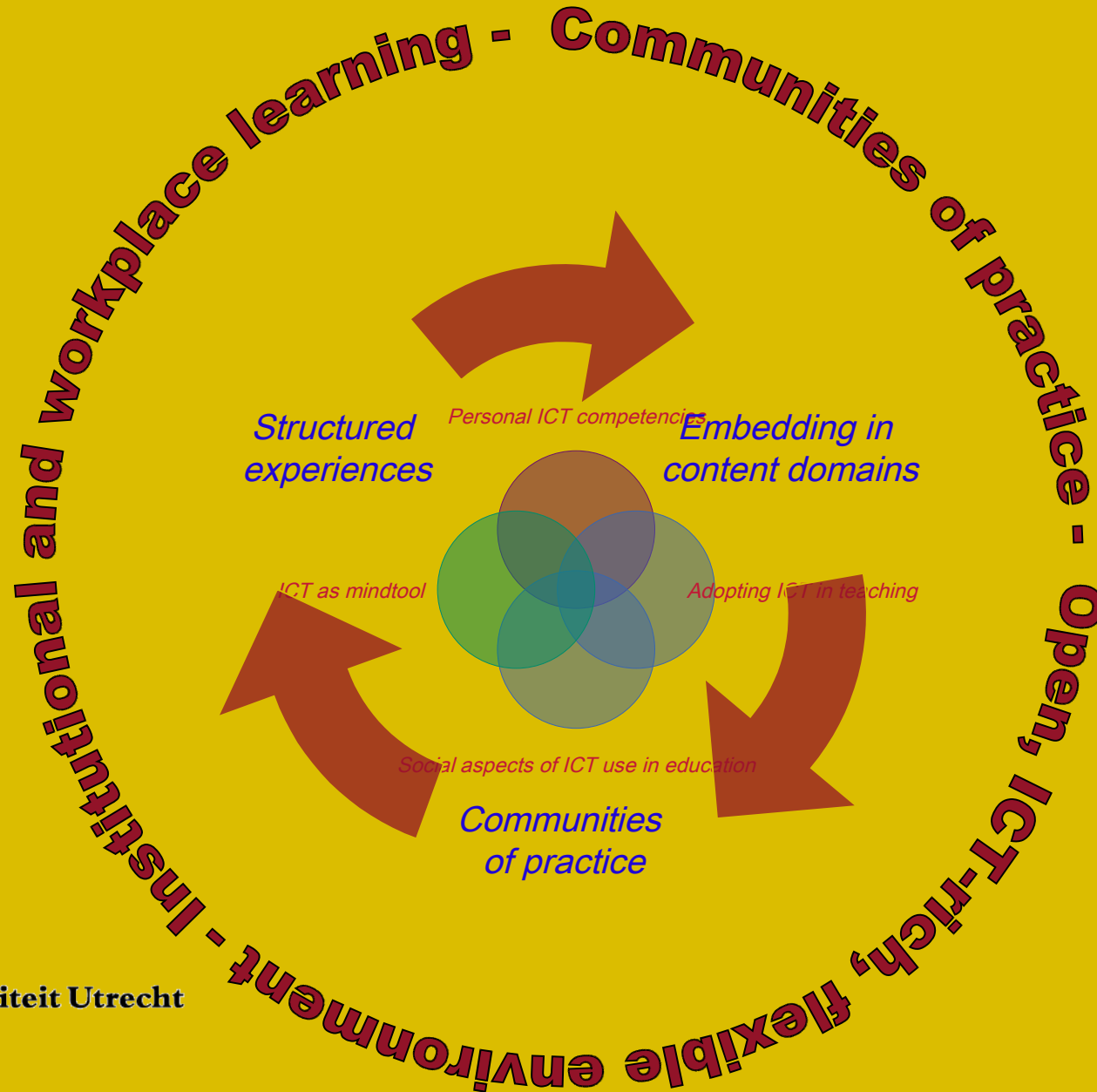
Social aspects of ICT use in education

Benchmarks for pedagogy

Kirschner, Wubbels & Brekelmans 2008



Institutional Benchmarks



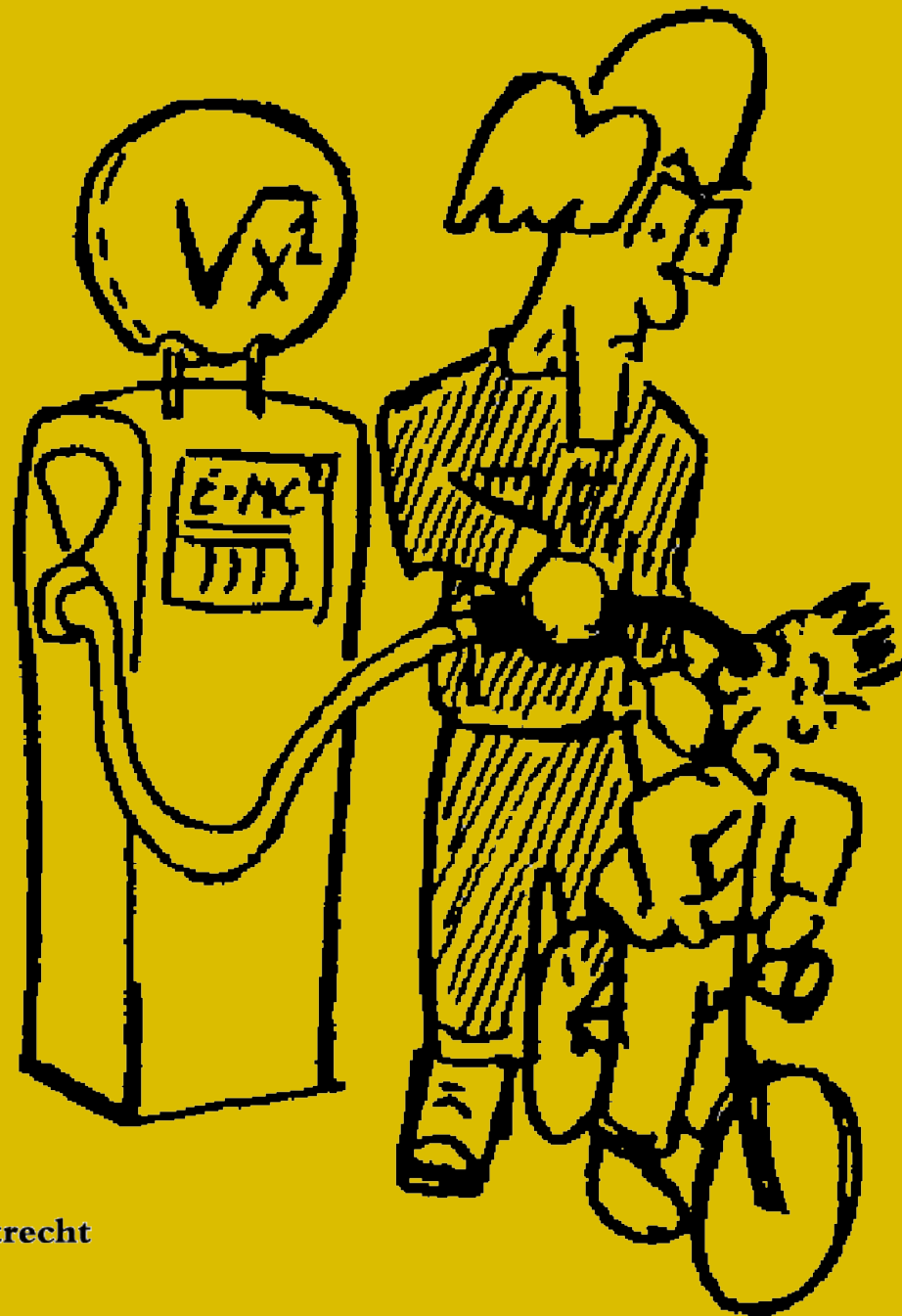
Kirschner, Wubbels & Brekelmans 2008

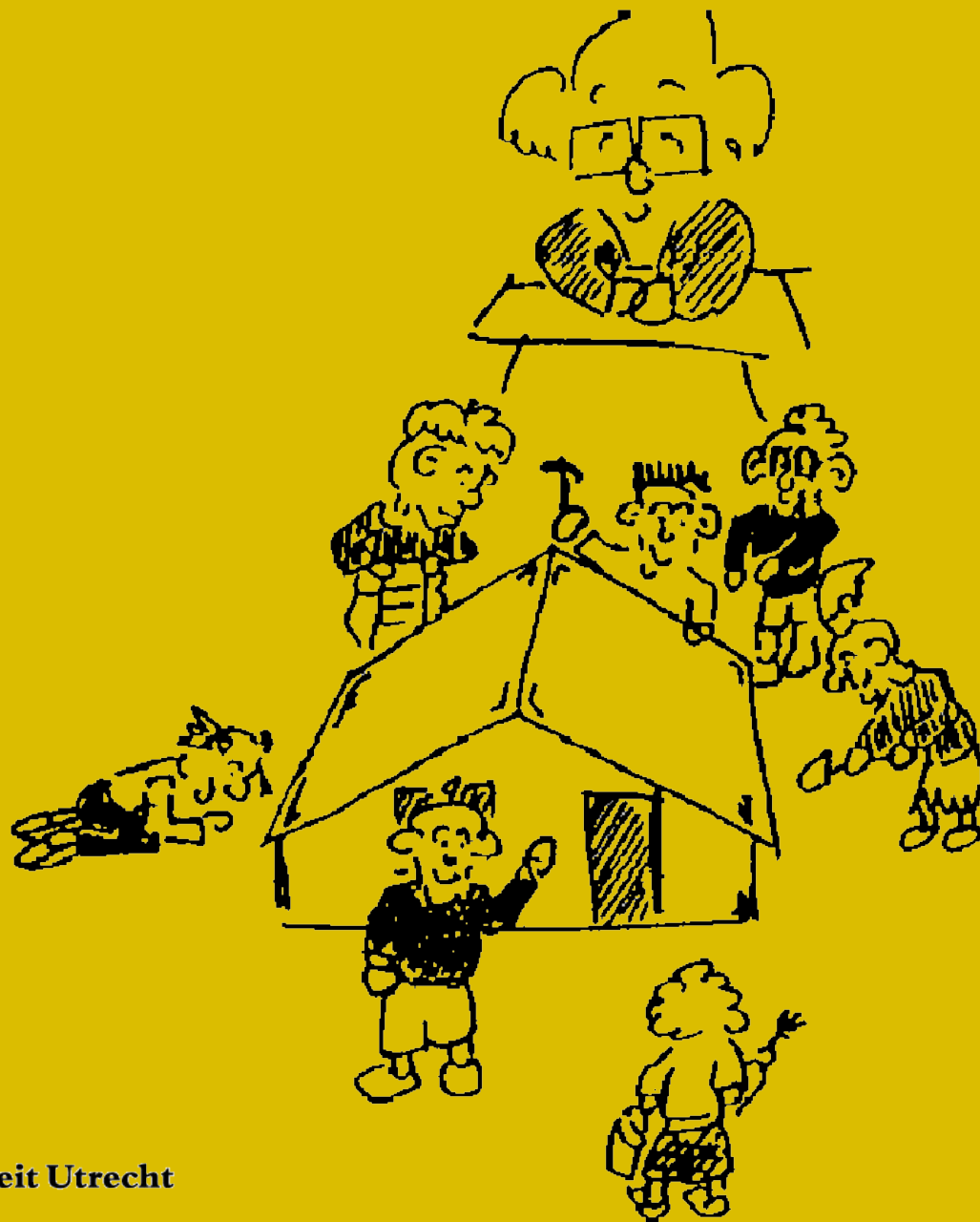


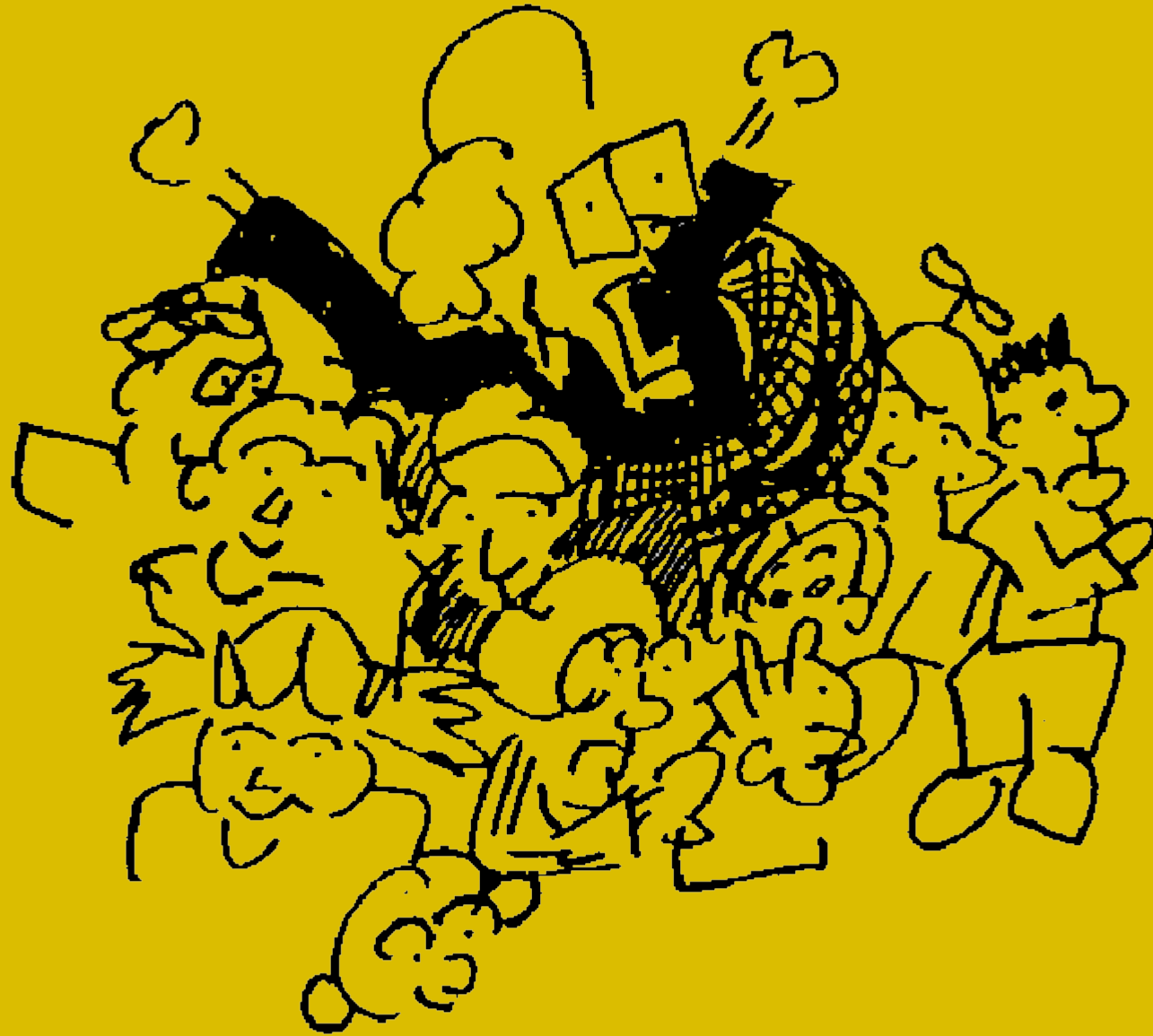
Concluding questions

- Do we overestimate how easy it is to incorporate current technological possibilities in teaching?
- Do we ask too much of our teachers?
- Do we offer teachers sufficient support?









Thank you!



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