Teacher education students and teacher educators: Their beliefs and concepts

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Long version

Theme: TE-students and teacher educators: their beliefs and concepts

Premiss: Succeeding TE depends on the matching between objective & subjective course of education

- **Subjective beliefs and concepts determinate the individual course of education**
- **Social and political demands determinate the objective course of education**

➢ **<u>Matching</u> between subjective (students & educators) and objective courses of education?**

Structure

1. Theoretical Frame
2. Students´ Beliefs & Concepts
   - →Importance of Professional Skills
   - →Self-Assessment of Professional Skills
   - →Acquisition/learnability of Professional Skills
3. Teacher Educators´ Beliefs & Concepts
   - →Subjective Knowledge
   - →Structural Knowledge
   - →Objective Knowledge
4. Implications & Future Visions on Learning and Teaching
   - →Implications & Visions for Teacher Education
   - →Implications & Visions for Higher Education

Teacher Education - Paradigms

Paradigm of Personality
(educational psychology)

„born teacher“
50-80% of teachers‘ opinion
(Bromme/Haag 2004, S. 777ff.)

Paradigm of Profession
(educational science)

„educated teacher“
→ professional skill
→ competency-based TE

Teacher Education

points of view

Content perspective

Students' perspective

Success for society

- **Profession – the object of interest**
- **Content**
- **„objective" view**

Interests/demands/wishes of society

Success for individuals

- **Person – the subject of interest**
- **Student**
- **„subjective" view**

Interests/demands/wishes of individuals

„One of the biggest problems of education is *how to combine the submission to regulated force with the ability to use one's own freedom.* Because compulsion is nessecary. **How can I cultivate freedom under constraint?** I should accustom my pupils to tolerate a constraint of his freedom. At the same time I should instruct him to use his freedom well." Kant (1803). On Pedagogy

Immanuel Kant (1724-1804)

→ ***dialectic problem of individual need and social demand***

Robert Havighurst (1900-1991)

Developmental Tasks and Education. McKay, 1972.
age dependent model of Developmental Tasks (1948)

A developmental task is midway between an individual need and a societal demand. (Havighurst, [1948] 1972, p. vi)

"A developmental task is a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks." (cited by Trautmann 2004, S. 23)

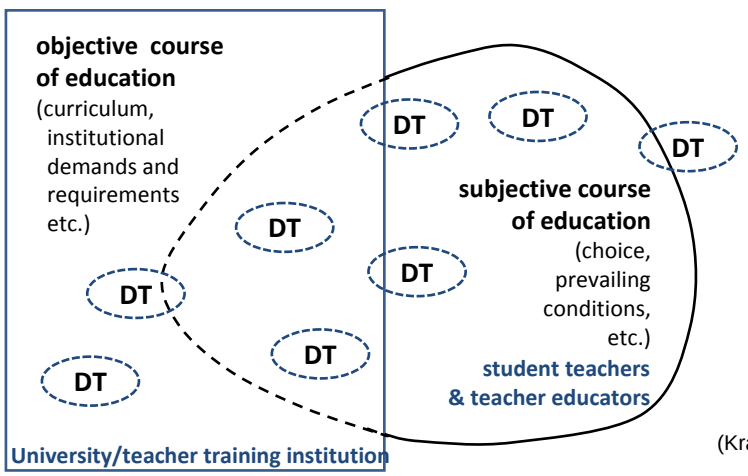
teaching objectices & students' perspectives

curricular framework for TE (normative)

students' interests, needs, situation, visions

By placing sense making, competence and identity development in the middle of our diagram, we define good instruction in a new way. ***Experience, in educational setting, allows sense making,* this means *growth of meaning in the Dewey sense, and growth of meaning means competence* and identity development.** It is of great importance for success in learning and should receive increased weight in the analysis and evaluation of learning environments and instructional processes. (Meyer 2007, p.167)

Teacher Education – matching of objective & subjective courses?!



(Kraler 2009)

extrinsic demands → instruction

intrinsic motivation → construction

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   →Implications & Visions for Teacher Education

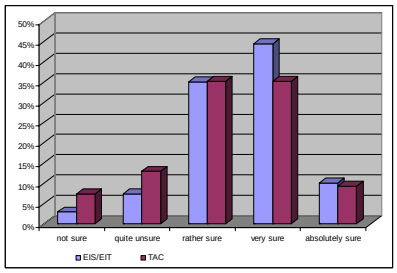
   →Implications & Visions for Higher Education

2 studies: EIS/EIT and TAC - Socio-demographic findings

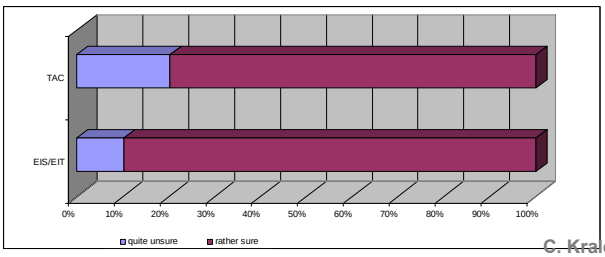
	EIS/EIT	TAC (teacher assessment center)
Quantity	N = 878 (total)	N = 54
Year	2004-2007	2005
Average Age	20,7 years	23 years
Gender	approx. 1/3 male; 2/3 female	approx. 1/3 male; 2/3 female
Final Exam Grades	Ø 2,49; SD: ,571 Variance: ,326 Minimum 1; Maximum 4 Female: 2,42 Male: 2,60 (T= -4,303**)	Ø 2,68; SD: ,4462 Variance: ,199 Minimum 2; Maximum 3,5 Female: 2,65 Male: 2,74
Context of data collection	First and second semester; „Introduction in TE-Studies“ (2 – 4 hours, single-day-event)	Various semester Elective seminar in pedagogy – „Reflexion of aptitude and motivation for the teacher profession“ (2 hours weekly, in total 24 hours)

Sureness/Certainty of becoming a teacher

EIS/EIT: How sure are you of becoming a future teacher?
TAC: How sure are you of becoming a future teacher, at the moment?

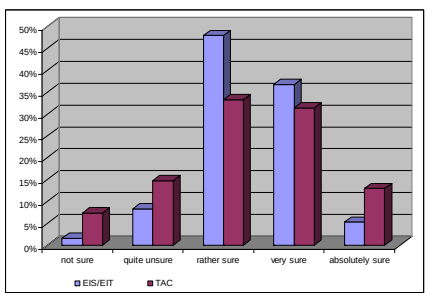


	EIS/EIT	TAC
Mean	3,51	3,26
SD	,881	1,049
Variance	,777	1,101
Minimum	1	1
Maximum	5	5
N	852	54

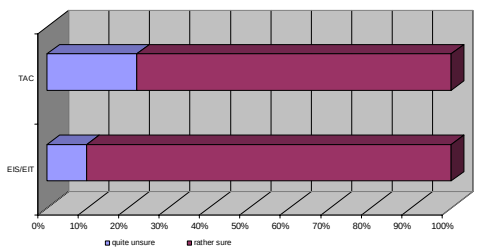


Certainty in Vocational Aptitude

EIS/EIT: How sure are you in your vocational aptitude?
TAC: How sure are you in your vocational aptitude, at the moment?



	EIS/EIT	TAC
Mean	3,36	3,28
Standard Deviation	,772	1,106
Variance	,596	1,223
Minimum	1	1
Maximum	5	5
N	849	54



Significant coherence between certainty of study-choice and certainty in vocational aptitude

Hypothesis:
Students´ beliefs and concepts determine their disposition, motivation and construction in/of their studies.

Beliefs and concepts depends on
→wether professional skills are concidered as important
→the self-assessment concerning professional skills
→wether professional skills are native or not and if it needs strength to acquire

Research questions (45´questionaire):
What´s about students´ beliefs and concepts concerning
- **Importance?**
- **Self-Assessment?**
- **Acquisition/Learnability?**

Professional Skills for Teachers

(Bildungskommission NRW 1995; KMK 1999; Oser 2001; WR 2001; Merkens 2003)

Personal and Social Skills	Methodical-didactical Skills	Technical Skills
• Conflict Management • Tolerance • Empathy • Sympathy for Children and Teenagers • Emotional Stability • Fairness • Creativity • Team Player • Confidence • Humour • Ability to Communicate • Ability to reflect • Self-Assessment Skills • Authority • Patience	• Counselling Skills • Ability to Think Interdisciplinary • Ability to Handle Complex Situations • Ability to Plan and Design Teaching-Learning Procedures • Ability to Handle Discipline Problems • Media Skills • Leadership Skills • Methodical Skills	• Broad, extended Expert Knowledge • Basic Knowledge of Pedagogy and Psychology • Ability to Identify / Assess Performance, Potentials, Disruptions • Ability to Co-operate in Symposiums • Technical skills (subject-specific)

Importance of Personal & Social Skills (For a good teacher in general it is...)

Scale: 1=unimportant, 5=indispensable

Field of Competence	TAC			EIS/EIT		
	N	M	SD	N	M	SD
Ability to Communicate	54	4,50	,637	854	4,41	,662
Patience	54	4,46	,636	855	4,50	,660
Empathy	54	4,43	,690	851	4,27	,776
Fairness	53	4,40	,660	856	4,35	,705
Confidence	53	4,32	,613	857	4,22	,736
Conflict management	54	4,31	,748	850	4,02	,724
Sympathy for children and teenagers	54	4,31	,886	849	4,23	,849
Emotional stability	54	4,26	,678	854	4,23	,752
Tolerance	54	4,24	,751	855	4,18	,766
Authority	54	4,04	,868	857	3,91	,898
Self-assessment skills	54	4,02	,858	852	3,99	,779
Reflexion skills	53	3,87	,833	855	3,69	,732
Humour	54	3,83	,906	844	3,61	,942
Team player	53	3,68	,936	852	3,89	,829
Creativity	54	3,59	,813	856	3,61	,839

Importance of Methodical-didactical Skills (For a good teacher in general it is...)

Field of Competence	TAC			EIS/EIT		
	N	M	SD	N	M	SD
Handling discipline problems	54	4,06	,738	857	3,90	,733
Leadership skills	54	4,04	,800	853	3,95	,701
Handling complex situations	54	3,98	,835	846	3,91	,720
Planning and designing of teaching-learning processes	54	3,89	,744	853	3,87	,738
Counselling skills	54	3,76	,775	849	3,87	,729
Methodical skills	54	3,72	,811	853	3,73	,774
Ability to think outside the box / think interdisciplinary	54	3,69	,773	849	3,73	,776
Media skills	54	2,91	,708	849	3,11	,829

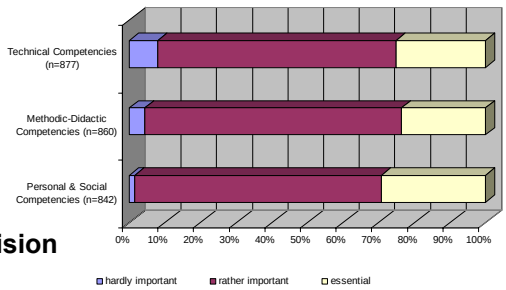
Scale 1=unimportant, 5=indispensable

Importance of Technical Skills (For a good teacher in general it is...)

Field of Competence	TAC			EIS/EIT		
	N	M	SD	N	M	SD
Identifying / assessing performance, potentials, trouble	54	4,39	,596	850	4,26	,676
Technical skills (subject-specific)	54	4,13	,778	855	4,29	,733
Basic knowledge of Pedagogy and Psychology	53	3,72	,928	855	4,05	,857
Ability to co-operate in symposiums (teacher meetings? School meetings?)	54	2,87	,848	850	3,31	,846
Broad, extensive expert knowledge	53	2,72	,948	849	3,06	,933

Scale 1=unimportant, 5=indespensable

Importance of Professional Skills – Distribution of Frequencies EIS/EIT & TAC



All the categories are considered 'important'.
Technical skills are in comparision of the other two categories considered less important.
It is quite striking, that the respondents from the TAC group consider technical competencies significantly less important than respondents from the Freshmen group. (T=2,859 df=875 (004)**); impact of their experiences?
Personal and social skills are considered the most essential/ important skills.

Importance of Professional Skills → some remarkable values

- **Significant gender impacts**
- ***Basic knowledge of Pedagogy and Psychology* (3,72; SD= ,928) is as important as *Humour (3,83)***
- ***Broad, extensive expert knowledge* has the lowest value in total (2,72 = little – rather important, by high compliance)**
- **Highest compliance, SD > .850 (range from ,596 until ,942)**
  - **Humour (M = 3,61/3,83)**
  - **Team player (M = 3,89/3,68)**
  - **Sympathy for children and teenagers (M = 4,23/4,31)**
  - **Authority (M = 3,91/4,04)**
  - **Self-assessment skills (M = 3,99/4,02)**
  - **Basic knowledge of Pedagogy and Psychology (M = 4,05/3,72)**
  - **Broad, extensive expert knowledge (M = 3,06/2,72)**

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Self-Assessment concerning Personal & Social Skills

(Comparsion of Means between EIS/EIT and TAC Group and significant T-Tests)

Field of competence	TAC		EIS/EIT		T
	M	SD	M	SD	
Empathy	4,23	,724	4,18	,747	
Sympathy for children and teenagers	4,17	,771	4,25	,799	
Tolerance	4,07	,696	4,17	,698	
Humour	4,04	,846	4,11	,760	
Fairness	4,02	,671	4,25	,641	2,518 (,012)*
Ability to communicate	3,96	,846	4,05	,751	
Team player	3,81	,913	4,01	,779	
Patience	3,67	,971	3,80	,858	
Confidence	3,60	,862	3,72	,810	
Emotional stability	3,56	,839	3,79	,770	2,153 (,032)*
Conflict management	3,54	,636	3,64	,682	
Creativity	3,48	1,041	3,59	,984	
Ability to reflect	3,35	,805	3,34	,807	
Self-assessment skills	3,32	,827	3,58	,788	2,324 (,020)*
Authority	3,29	,776	3,20	,858	

Self-Assessment concerning Methodical-didactical Skills

Field of competence	TAC		EIS/EIT		T
	M	SD	M	SD	
Leadership skills	3,30	,838	3,22	,872	
Ability to handle complex situations	3,25	,806	2,72	,883	-4,238 (000)**
Councelling skills	3,13	,912	3,34	,852	
Ability to think interdisciplinary	3,07	,723	3,09	,814	
Media skills	3,07	,988	3,23	,938	
Ability to handle discipline problems	3,04	1,037	3,19	,846	
Ability to plan and design teaching-learning procedures	2,66	,807	2,52	,887	
Methodical skills	2,59	,714	2,60	,846	

Self-Assessment concerning Technical Skills

Field of competence	TAC		EIS/EIT		T
	M	SD	M	SD	
technical skills (→ subjects)	3,19	,681	2,89	,798	-2,653 (,008)**
ability to identify / assess performance, potentials, disruptions	3,02	,820	3,07	,890	
basic knowledge of Pedagogy and Psychology	2,44	,816	2,45	,889	
ability to co-operate in symposiums	2,38	1,060	2,64	1,100	
broad, extensive expert knowledge	2,33	,869	2,20	,863	

Self-Assessment concerning Professional Skills

Findings from T-Test EIS/EIT and TAC:

Means of both groups are in the *'rather good'* range of the skale (≥ 3) → Both groups assess their skills rather high.

• Highest values in personal and social skills.

• Students of the TAC group assess most of their personal and social skills lower than students of the Freshmen group (significant for *Fairness, Emotional Stability* and *Self-assessment).*

•TAC group assesses *ability to handle complex situations* and *technical skills* significantly higher than the Freshmen group.

•Significant differencies between gender

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Acquisition/learnability of Professional Skills

„What would you say? (choose only one option)“

1 = you have it or you don't
2 = needs to be learnt
3 = comes with further experience /comes over time

Acquisition/learnability of Personal & Social Skills

1 = you have it or you don't (%)
2 = needs to be learnt (%)
3 = comes with further experience /comes over time (%)

Field of competence	1	2	3
Conflict Management	11,34	62,02	26,63
Self -Assessment Skills	29,81	38,88	31,30
Team Player	43,10	38,92	17,98
Reflexion Skills	19,45	50,43	30,11
Authority	43,15	36,93	19,92
Confidence	50,13	26,17	23,70
Ability to Communicate	48,53	32,78	18,69
Emotional Stability	63,39	18,06	18,56
Tolerance	56,02	31,93	12,05
Fairness	69,68	19,18	11,14
Creativity	80,84	12,90	6,27
Patience	73,35	19,30	7,35
Empathy	82,69	9,38	7,93
Sympathy for Children and Teenagers	93,11	3,44	3,44
Humour	97,03	1,19	1,78

Acquisition/learnability of Methodical-Didactical Skills

1 = you have it or you don't (%)
2 = needs to be learnt (%)
3 = comes with further experience /comes over time (%)

Field of competence	1	2	3
Media Skills	1,34	89,19	9,48
Methodical Skills	0,24	87,50	12,26
Ability to plan and design Teaching-Learning Procedures	0,13	87,86	12,02
Ability to think interdisciplinary	3,63	72,52	23,85
Counselling Skills	4,46	67,31	28,23
Leadership Skills	11,28	64,06	24,66
Ability to handle discipline problems	2,74	63,22	34,04
Ability to handle complex situations	2,45	52,02	45,53

Acquisition/learnability of Technical Skills

1 = you have it or you don't (%)
2 = needs to be learnt (%)
3 = comes with further experience /comes over time (%)

Field of competence	1	2	3
Broad, extended expert knowledge	0,37	90,36	9,27
Basic knowledge in Pedagogy & Psychology	0,86	93,76	5,39
Technical Skills (subject-specific)	1,21	86,68	12,11
Ability to identify/assess performance, potentials, disruptions	1,01	49,12	49,87
Ability to co-operate in symposiums	4,94	60,00	35,06

Acquisition/learnability of professional skills

The students considered more than half of the required skills in the field of personal and social skills as being native or innate. Exception: conflict management & the ability to reflect.

Up to 45% of the students considered half of the methodical-didactical and theoretical skills not to be learnt aware and with effort

TE-students´ beliefs and concepts

→Misjudgements concerning professional demands?

→Misjudgements concerning professional skills?

→Strength and motivation in appropriate direction?

→Succeeding creation of subjective course of education?

→Success for individuals?

→Success for society?

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Qualitative Study:
Teacher Educators and their concept of Teacher Education

Starting Point:
What do we know about teacher educators and their concepts?

→ personal knowledge ("subjective evidence")
opinions, personal beliefs, epistemologies, theories...
→ structural knowledge
based on self similarity of educational systems
TE as (professional) education
→ research based knowledge ("evidence-based", cf. Kraler 2010)

Answer:
"not that much"

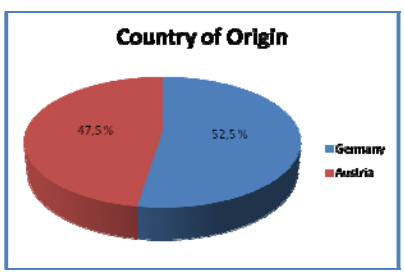
→ (ongoing) qualitative study

guideline-based Interview Study

- Basic information: age, sex, siblings, parents occupation, seniority
- How/why did you start working in the area of TE (incl. relevant qualifications)
- What is your key-message in everyday work with TES
- How do you verify that it is received by the TES?
- Learnability (born teacher vs. trained teacher)

40 Interviews (~1/2 hour)
TE from Germany and Austria

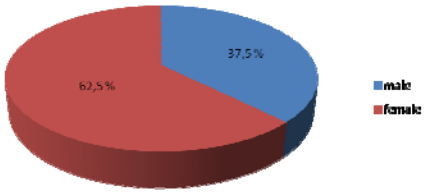
	Age	Seniority
Mean	51,2	17,4
Stddev	8,5	9,2
min	32	1
max	66	37



TE sample

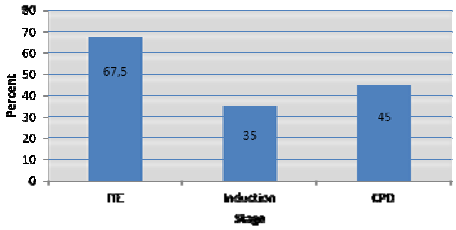
CPD=continuing professional development

Gender

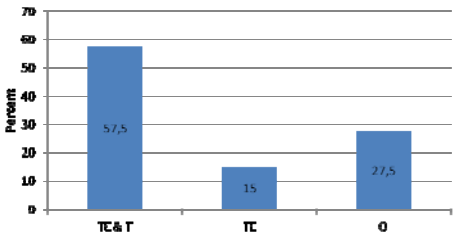


~> cf. Student distribution

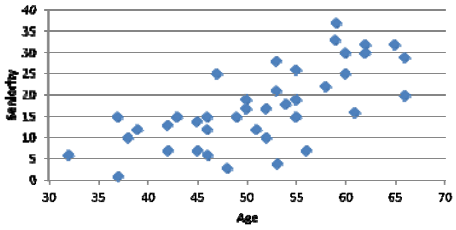
Working Area of TE



School Teaching Experience

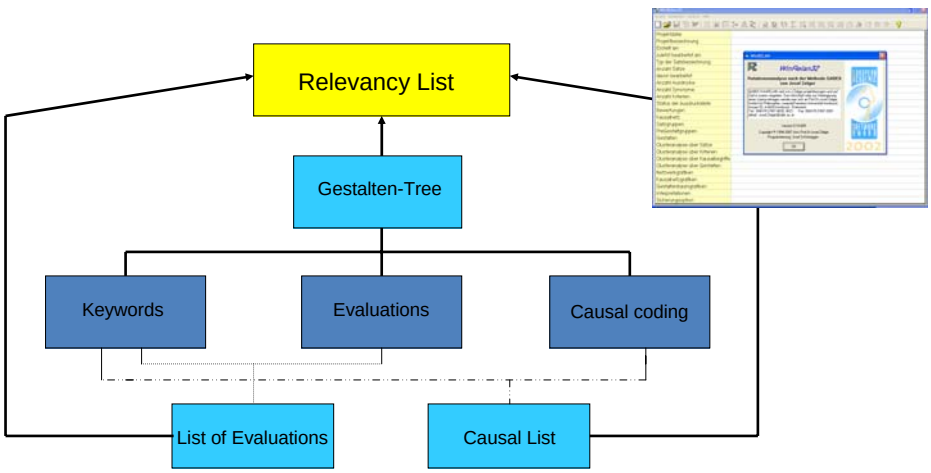


Age/Seniority



Correlation Age/Seniority
corr = 0.69

Relevancy Analysis with Gabek/WinRelan (Basic Principle)



- Keywords: Descriptions, Ennumerations, Representation of facts, ...
- Evaluations: positive, negative, controversial
- Causal coding: assumptions on (causal-) relations

 (cf. Buber/Kraler 2000)

WinRelan: Caqdas analysis
relevancy list (1)

causal item:
aims/goals

Gestalt	item	Relev.	Bew.	Causal relation		
level		Nb	Sum	–›o	o–›	Sum
H	lessons	35	**1**	15	3	**18**
G	notice	28	**0**	16		**16**
G	competencies	31	**3**	9	2	**11**
S	perceive	17	**0**	9	1	**10**
S	dialog	27	**4**	6	1	**7**
G	life	16	**1**	7		**7**
S	learning	18	**2**	5	1	**6**
S	learning process	10	**0**	5	1	**6**
G	show	10	**0**	5	1	**6**
S	pleasure	24	**4**	5		**5**

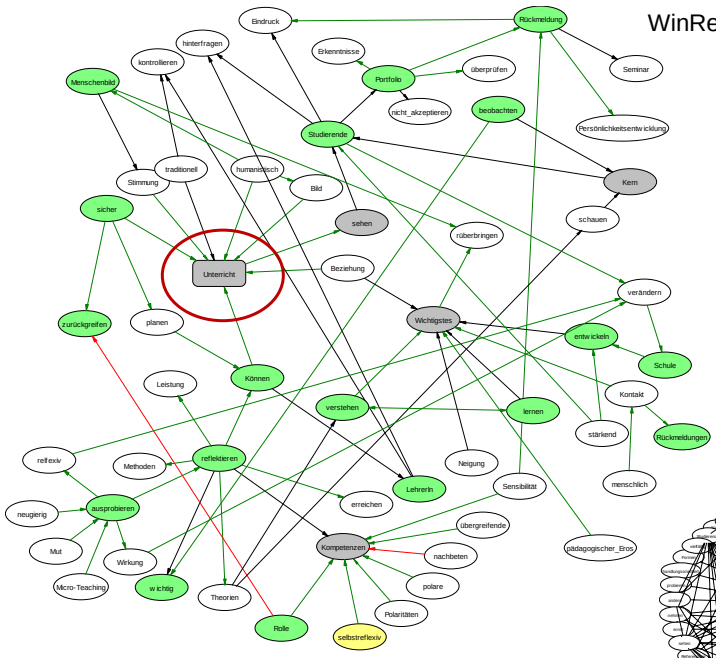
causal item:
measures

Gestalt	item	Relev.	Bew.	Causal relation		
level		Nb	Sum	–›o	o–›	Sum
S	dimension of application	34	**4**		11	**11**
H	reflection	27	**3**	2	7	**9**
G	TE-student	14	**0**	1	7	**8**
H	human beings	16	**1**		7	**7**
S	dare	16	**1**	1	6	**7**
G	I	10	**0**		6	**6**
S	subjective	10	**0**		6	**6**
S	ability	9	**0**	1	4	**5**
H	personality	16	**2**		5	**5**
S	self-refelxive	28	**5**		5	**5**

WinRelan: Caqdas analysis
relevancy list (1)

causal item:
mediating items

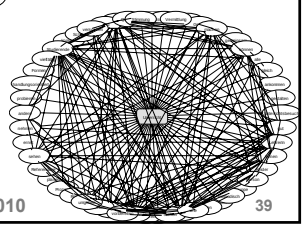
Gestalt	item	Relev.	Bew.	Causal relation		
level		Nb	Sum	–›o	o–›	Sum
H	TE-students	50	**0**	8	21	**29**
H	teaching	34	**0**	6	14	**20**
G	learning	33	**0**	11	8	**19**
S	fear	76	**13**	9	6	**15**
G	teachers	30	**1**	8	7	**15**
S	school	30	**2**	3	10	**13**
G	important	22	**0**	8	5	**13**
S	observe	32	**3**	8	4	**12**
H	profession	21	**0**	4	8	**12**
H	pupils	21	**0**	6	6	**12**
H	idea of man	56	**10**	3	7	**10**
H	reflect	52	**9**	3	7	**10**
G	say	17	**0**	4	6	**10**
G	atmosphere	19	**1**	3	6	**9**
G	feedback	19	**1**	5	4	**9**
G	understand	16	**0**	4	5	**9**
S	knowledge	16	**0**	5	4	**9**



WinRelan: Caqdas analysis
causal net

Item: instruction

interaction of
variables
(cf. Doyle 2006)



I. **Key messages** – categories

TE-findings

“ethical” aspects:

- **(humanistic) idea of man, growth- and resources-oriented**
  „to be aware of TES own individual potential, support them.“
  „bring strengths to mind, to handle weaknesses.“
- **„(profession oriented) calling“**
  „openness, enthusiasm, authenticity

trait aspect:

- **paidotrope/logotrope attitude** (Caselmann, 1964)
  „to like children, love subjects and content“

professional aspect:

- **Understanding of the Teaching Profession**
  „professional role, job profile, to convey the occupational image“
- **reflection of doing and acting**
  „self-reflection on own professional work, observe pupils“
- **expert for learning processes**
  „arrangement of learning environment, learning styles, change of perspective“
- **Tools**
  „subject specific and pedagogical knowledge“

II. **Realization** – categories

observational learning:

- to act as a role model

mental aspects:

- encourage critical thinking and reflecting
- support changing point of views

transfer and implementation:

- combine theory and practice
- teaching practice
- encourage teaching experiments
- peer discussions, peer work

III. **Verification** – categories

- **Obserservation**
  impossible during lectures, during lessons, role plays,
- **Evaluation**
  written/oral, evaluation forms
- **one-to-one talk**
  during/after courses or later (by chance)
- **products**
  portfolios, written tests/exams/…, diploma thesis
- **sense, feeling, „eye for it“**
  tacid/implicit knowledge

„The ideal framework conditions are unfortunately not fulfilled.“
„It is a very subjektive issue“
„It‘s not much more than gut feeling.“

Teacher Educators – main findings

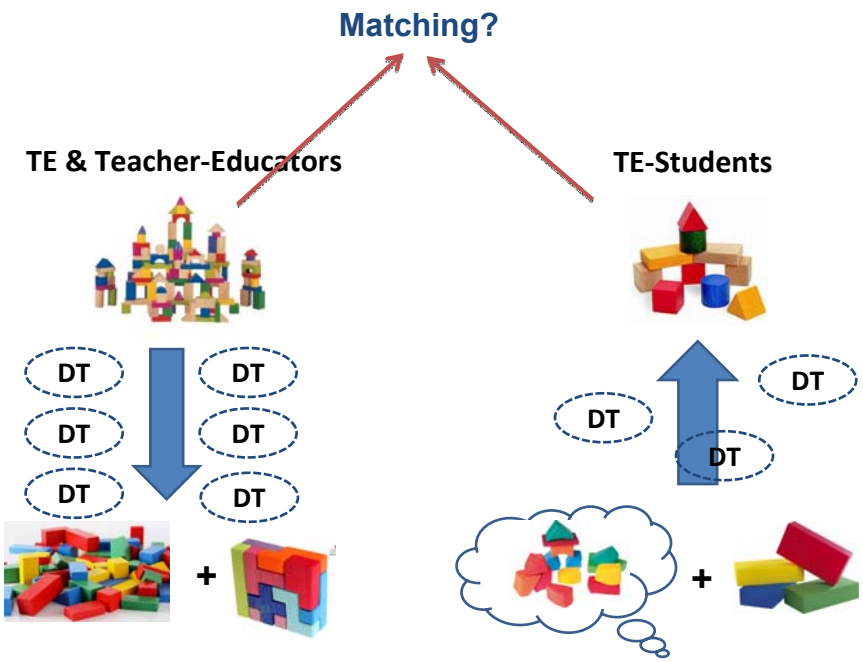
- message:
  high demands on their own work with TES
  (with **humanistic idea** of man in focus)

- realization:
  act as a **role model**,
  provide **free space** for experiments/new experiences

- evaluation:
  refer to **tacit/implicit knowledge**, gut feeling
  observations
  informal talks

Structure

1. Theoretical Frame
2. Students´ Beliefs & Concepts
   - →Importance of Professional Skills
   - →Self-Assessment of Professional Skills
   - →Acquisition/learnability of Professional Skills
3. Teacher Educators´ Beliefs & Concepts
   - →Subjective Knowledge
   - →Structural Knowledge
   - →Objective Knowledge
4. **Implications & Future Visions on Learning and Teaching**
   - **→Implications & Visions for Teacher Education**
   - **→Implications & Visions for Higher Education**



What we mainly have…

Mass events with knowledge transfer

Written reviews of knowledge

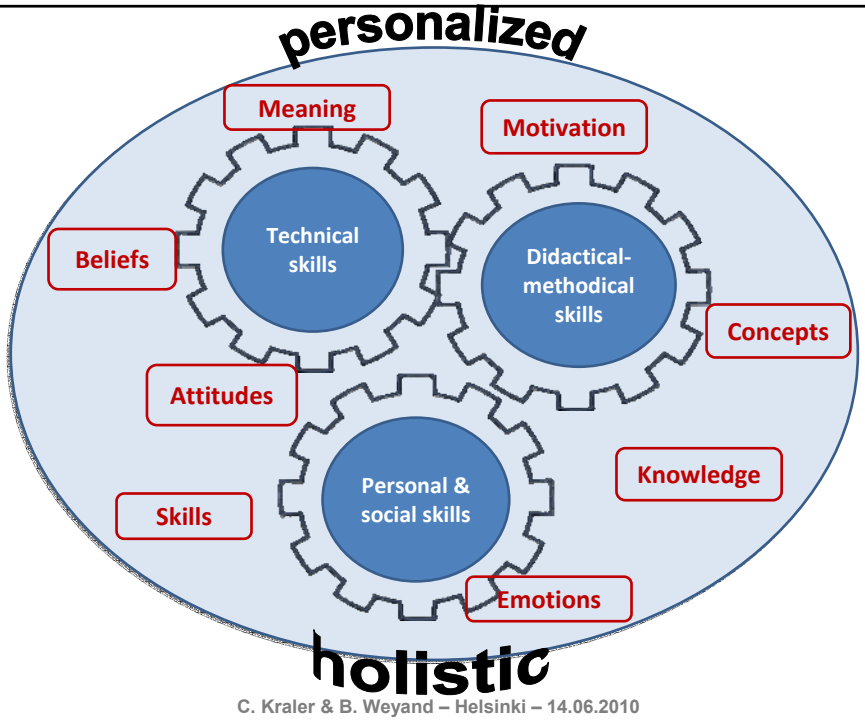
We need …

… personalized and holistic

(incl. knowledge, skills and attitudes)

learning and teaching arrangements

→ paradigmatic shift



Implications for Teacher Education – visions & demands

→ TE-Students need knowledge about personal and social skills and their modification (→ developmental psychology)
→ both for themselves and for their further pupils
→Teacher Education system thinks TE from the end (outcome, occupational ability)
→Students think their TE from the beginning
→Teacher Education (system and persons) needs to call for the students where they actually are
→Students must achieve a clear and realistic idea of the profession and the specific demands
cf. Weyand 2008, 2010 (i.p)

We need to give the freshers opportunities to clarify, reflect and validate their beliefs and concepts
We need this process-oriented and explicitly placed in the curriculum
We need professional and appropriate qualified Teacher Educators

Implications for TE in Higher Education - visions and demands

TE-Students need appropriate teaching-, learning- and developing-arrangements
→ to develop their ability of self-reflexion
→ which make them an object of their studies
→ to make them a subject of their professional development
→ to develop their metacognitive skills
→ with opportunities for feedback processes (performance and perception)

We need suitable quantitative relations students-lecturer.
We need lecturers with self-conception being a teacher educator.
We need more and above all qualified counselling.

„When the emotional content of learning is well sustained, we have the real possibility of pedagogies of formation – experiences of teaching and learning that can influence the values, dispositions and characters of those who learn.“

Lee S. Shulman
Signature pedagogies in the professions, 2005