



# The question between reflecting and acting on general pedagogical knowledge of teachers



Ann-Kathrin Dittrich & Christian Kraler

Department of Teacher Education and School Research  
University of Innsbruck  
Austria



# Overview

- I. Introduction
- II. Research questions
- III. Methodology
- IV. Findings
- V. Discussion





# I. Introduction

Shulman (**1987**)

model of professional knowledge:

- content knowledge
- pedagogical content knowledge
- **general pedagogical knowledge**



**2<sup>nd</sup> Empirical Turn** (~ late **90ies/2000**): technologies-globalisation-acceleration  
→ international comparative (school) studies  
TIMSS, PISA, PIRLS  
→ econometrical, indicator based (quantitative), output oriented

current models of GPK

(cf. Voss et al. **2011**; König & Blömeke 2009; Baumert & Kunter 2006, Sonmark, K. et al. (2017))

COACTIVE  
TEDS-M  
ProwIN  
....

- classroom management
- adaptivity
- assessment
- motivation
- structure
- communication

Time

# I. Introduction



<https://www.piller-schulmoebel.at/ergonomie/bewegtes-lernen/>



[http://www.deutschlandfunkkultur.de/paedagogik-autoritaer-geist-durch-die-hintertuer.1008.de.html?dram:article\\_id=345675](http://www.deutschlandfunkkultur.de/paedagogik-autoritaer-geist-durch-die-hintertuer.1008.de.html?dram:article_id=345675)

mathematical quantification

- indicator based modelling
  - > internationalisation
  - > comparability
  - > standards

⊕ reconstruction



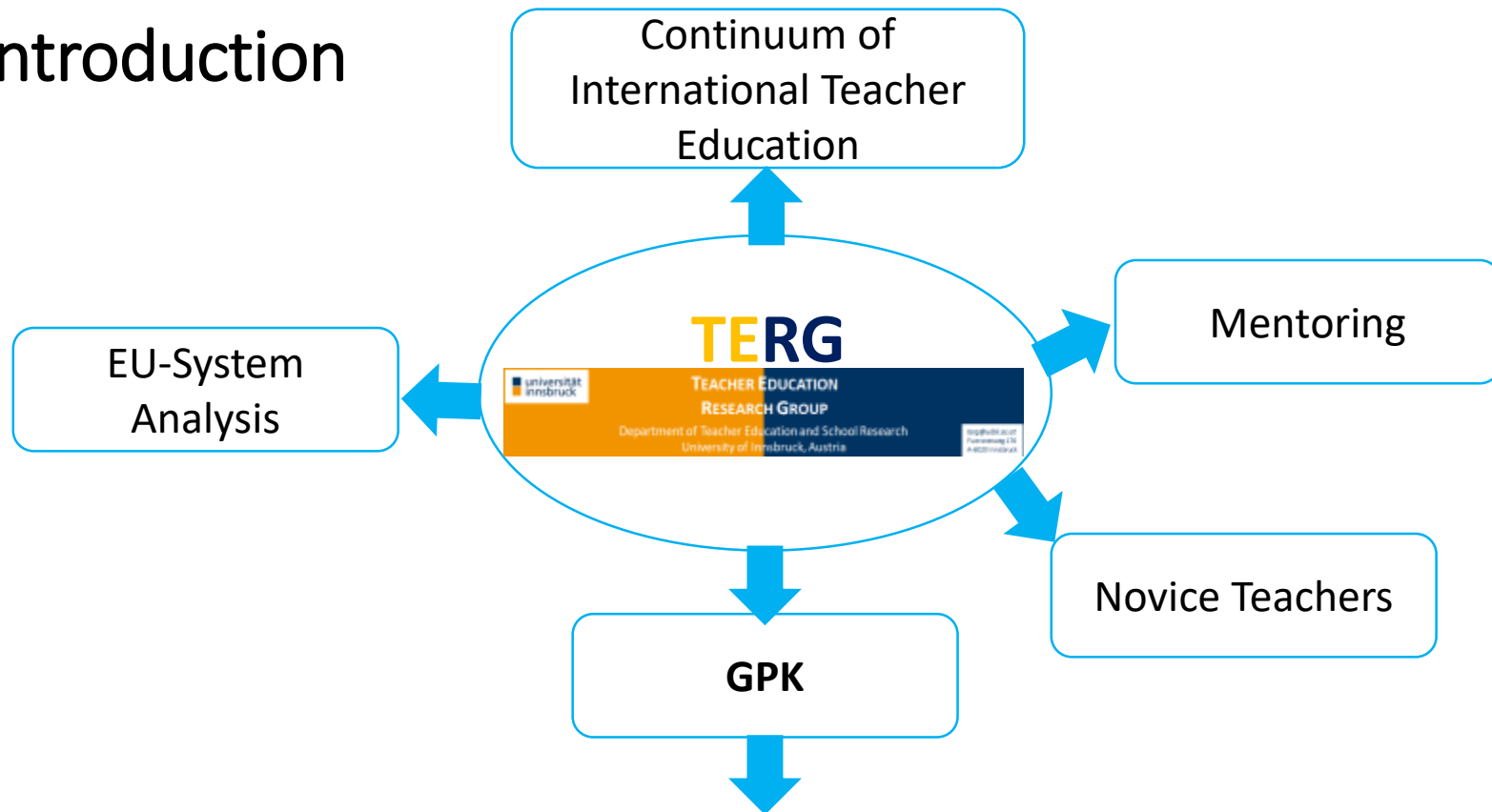
<https://www.tagesspiegel.de/meinung/neue-bildungsstudie-berlin-ist-unvergleichlich/7221880.html>

„We need standards [...] to make our schools work well in solving the myriad tasks they face. But [...] standards alone will not work. We need a surer sense of what to teach to whom and how to go about teaching it in such a way that it will make those taught more effective, less alienated, and better human beings.“ Bruner, J. (1996)





# I. Introduction



- *complementary* approach to the indicator driven quantitative OECD approach
- *reconstructive* approach from *praxis* perspective instead of construct based GPK assessment
- grounded theory
- spanning the *continuum* of GPK
- reconstructive, conceptual framework & *modelling*

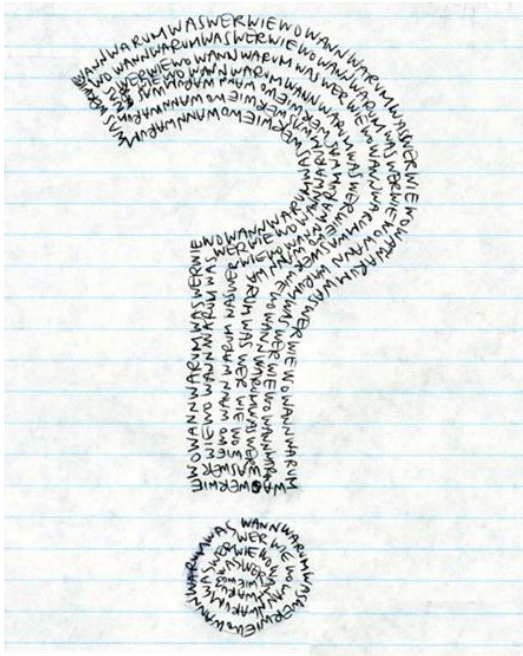


SDG4





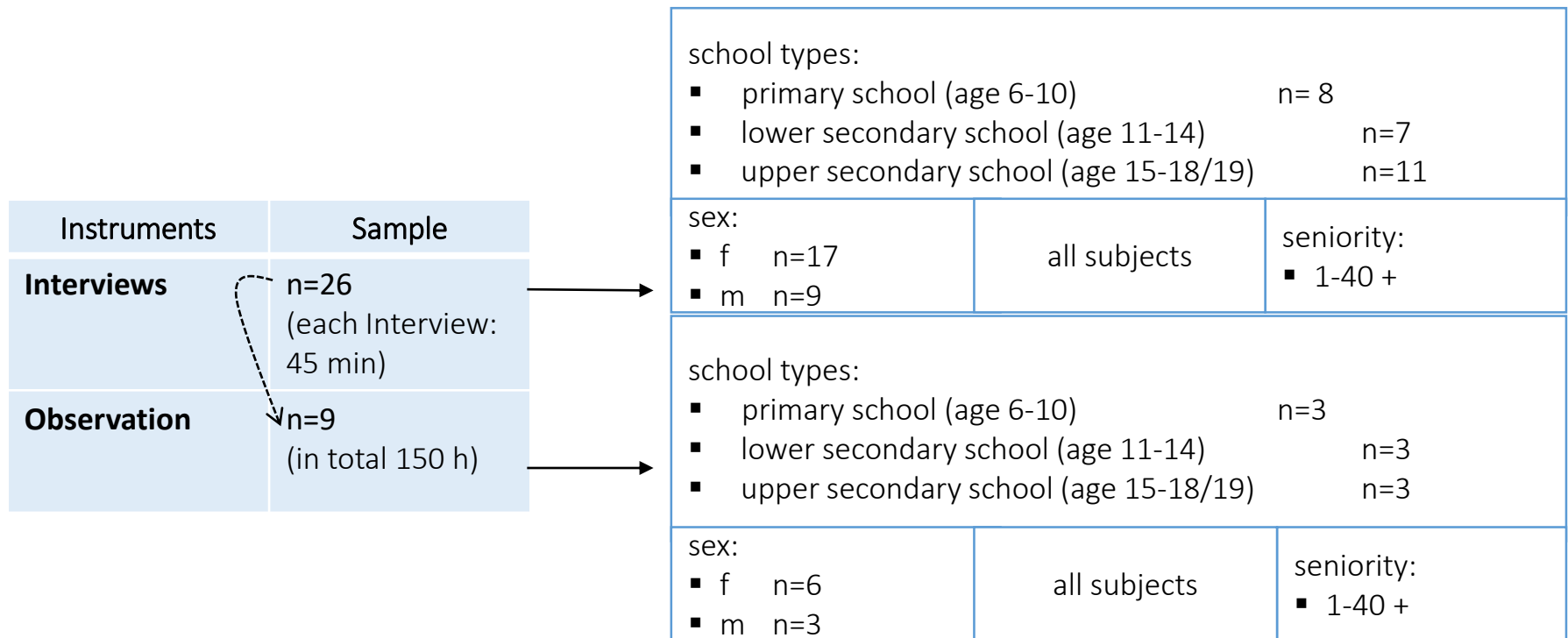
## II. Research question



1. The teachers' understanding of GPK in practice  
(including current challenges)?
2. Identifying teachers' GPK in everyday school practice  
based on observations?
3. **Behavioural gap? (teachers cognitive concepts of  
GPK in contrast to pedagogical acting)**

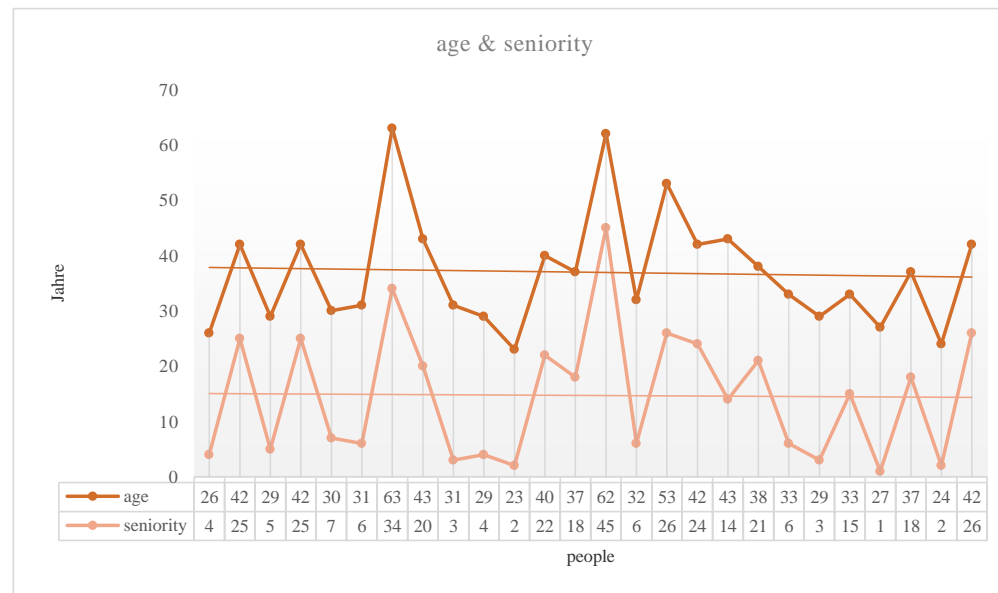
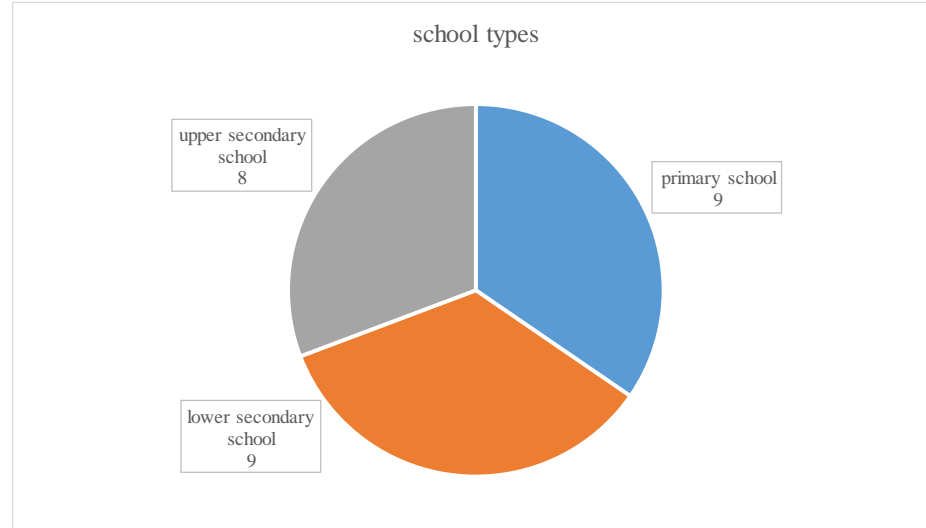
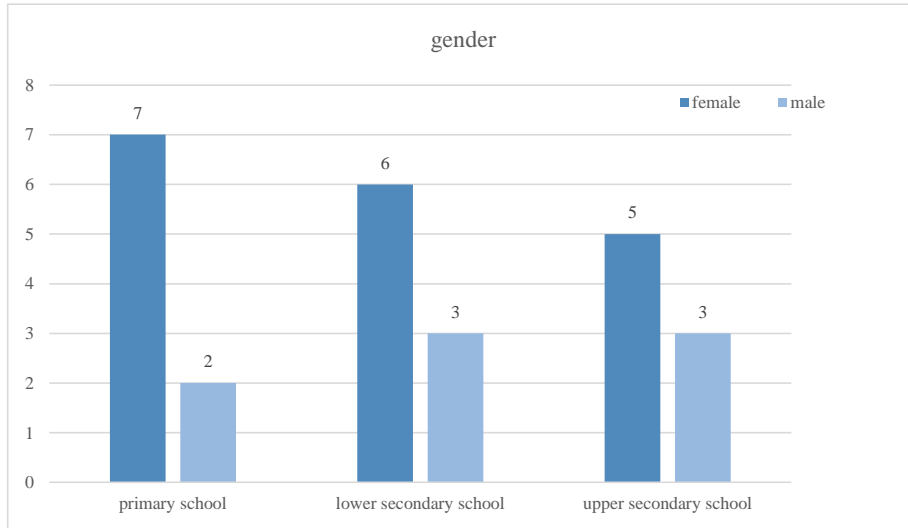


## II. Methodology





## II. Methodology





## IV. Findings – example: individual observation table

How does pedagogical knowledge shown in the actions of the teacher?	observations	comments
teacher creates tolerance in the classroom	<i>approved</i>	Teachers consider different achievements and personalities
teacher tickles the emotions of the students	<i>not approved</i>	Teacher tries to move, to express their emotions and feelings towards the subject. During the observations, this criterion was not visible to the students.
teacher can motivate the students	<i>partially approved</i>	Teacher tries to motivate pupils by using current songs and music. He shows in all
teacher is an expert	<i>approved</i>	Teacher can professionally
How does pedagogical knowledge shown in the actions of the teacher?	observations	comments
Teacher creates a varied and creative lesson	<i>not approved</i>	Teacher design the lessons in each class similar. Creative moments refer to individual methods. The lessons are mainly monotonous in the form of a frontal setting.
Teacher is interested in each students	<i>approved</i>	Teacher is friendly and open. It perceives the interests of the children and shows understanding. She approaches individual students and talks to them about personal issues.
Teacher can manage processes	<i>partially approved</i>	Teacher gives clear instructions. The students implemented the teacher's instructions. It was possible to observe how many students do not implement the work instructions. Instead, they sit in the square and talk to other students. Teacher shows how she does not manage to lead these students to work.
Teacher can motivate students	<i>partially approved</i>	Teacher manages to increase the interest of the students through a life relevant example. However, in the classroom mainly theoretical contents without life relevance are taught in frontal settings.
Teacher is an expert	<i>approved</i>	Teacher is using an frontal setting. As a result, she presents the typical expert role that stands in front of the class and teaching content.
Teacher can guide students to work independently	<i>partially approved</i>	Teacher can only partially guide pupils to work independently. Depending on the task and the type of work.
Teacher controls homework and make positive comments	<i>approved</i>	Teacher comments the homework with positive statements and gives the students an effective feedback.



## IV. Findings

	+	~	-
teaching competences	expertise teacher response teaching materials	diagonostic perspective	creative didactic flexibility
personalisation	personalised learning	self regulated learning	students- driven- learning process
social – emotional aspects	student motivation  (personal) symmetrical communication  emotions  positive atmosphere	motivation     pressure-free	positive atmosphere



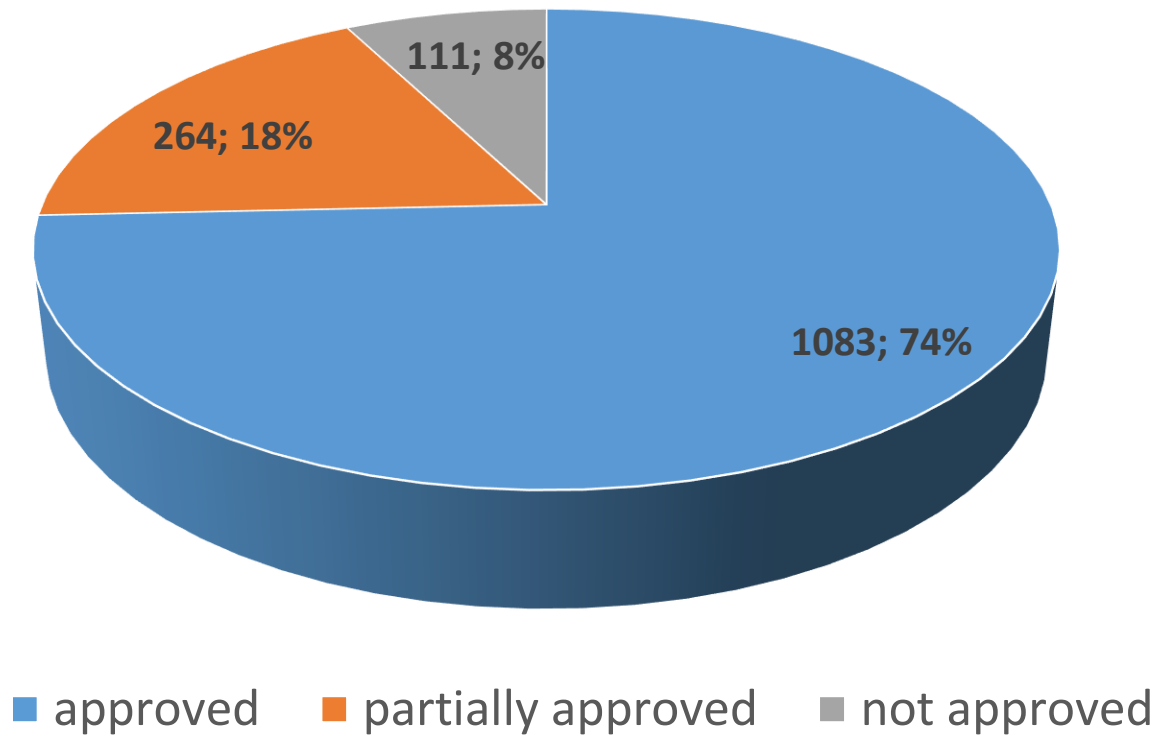
## IV. Findings

	+	~	-
teaching competences	<p>expertise (92)</p> <p>teacher response (115)</p> <p>teaching materials (72)</p>	<p>diagnostic perspective (56)</p>	<p>creative didactic flexibility (39)</p>
	personalised learning (382)	self regulated learning (55)	students- driven- learning process (32)
personalisation	<p>student motivation (88)</p> <p>(personal) (131)</p> <p>symmetrical communication</p> <p>emotions (31)</p> <p>positive (172)</p> <p>Atmosphere</p>	<p>motivation (95)</p> <p>pressure- free (58)</p>	<p>positive atmosphere (40)</p>
	<p>Σ 1083</p>	<p>Σ 264</p>	<p>Σ 111</p>
social – emotional aspects	<p>Σ 1458</p>		




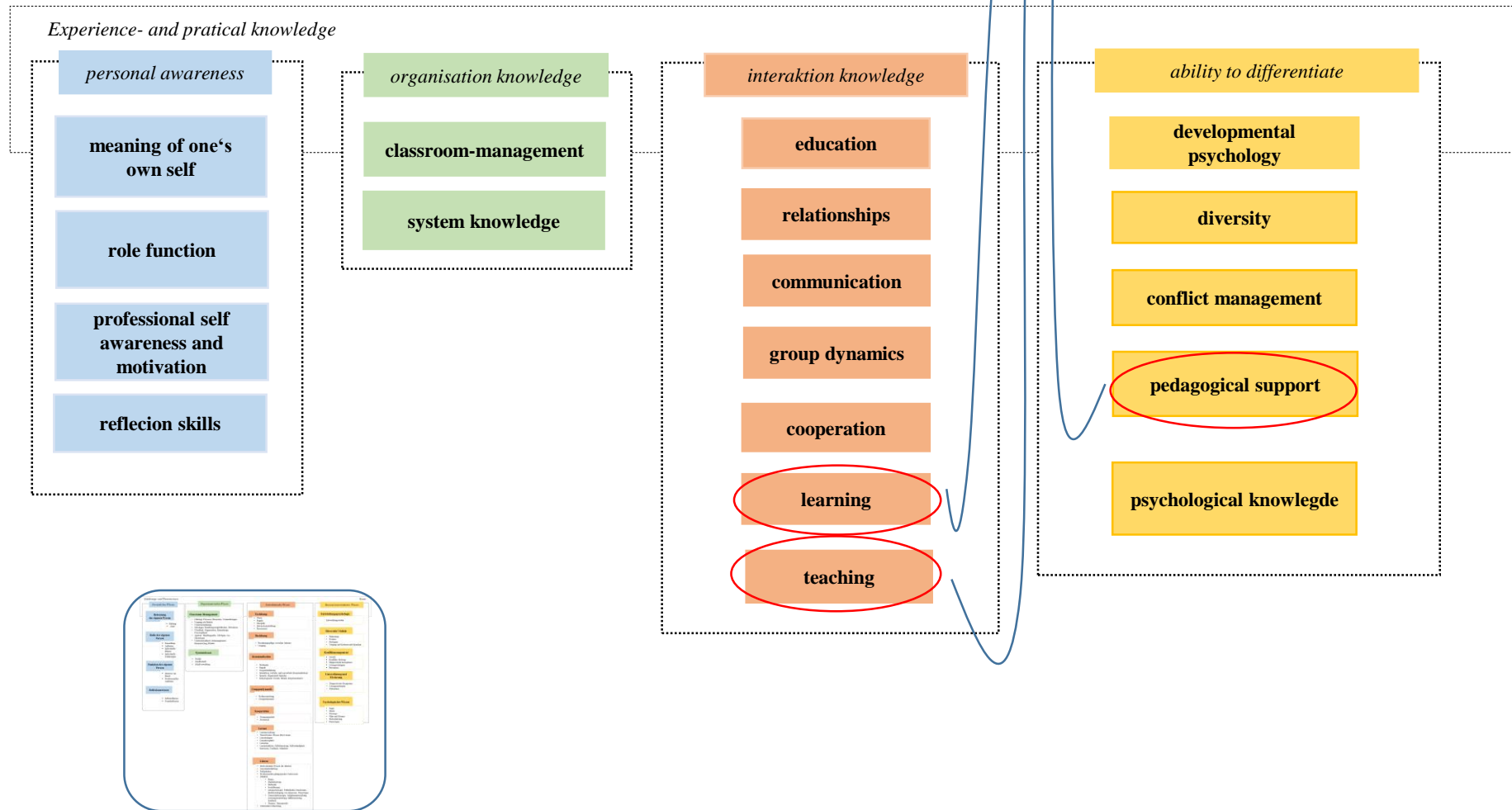
## IV. Findings

**Behavioural gap: interviews-observations**



## IV. Findings

	+	-	
	<b>expertise</b> (93) <b>teacher mission</b> (115) <b>teaching material</b> (71)	<b>disagrees perspective</b> (8) <b>creative/ethical flexibility</b> (76)	
	<b>personalized learning</b> (163)	<b>self-regulated learning</b> (52)	<b>students choose learning process</b> (50)
	<b>student motivation</b> (96) <b>motivation</b> (132) <b>systematic communication</b> (132)	<b>motivation</b> (74)	
	<b>emotions</b> (131) <b>problem</b> (127) <b>Atmosphere</b>	<b>problem free</b> (56)	<b>positive atmosphere</b> (65)
Σ	1063	Σ 264	Σ 111
	Σ 1458		





## V. Findings & Discussion

- Lack of verbal conceptualisation of GPK
- Reduction to fundamental aspects (teaching, learning, support)
- Discrepancy between implicit and explicit knowledge
- Complex acting → tacit knowledge
- 74% positive observations
- School form dependency
- Practice/field research gives a different picture in contrast to existing models





Ann-Kathrin Dittrich, Prof. Dr. Christian Kraler  
Department of Teacher Education and School Research  
University of Innsbruck  
A-6020 Innsbruck, Austria  
Phone: +43 512 507 44444

[Ann-Kathrin.Dittrich@uibk.ac.at](mailto:Ann-Kathrin.Dittrich@uibk.ac.at), [Christian.Kraler@uibk.ac.at](mailto:Christian.Kraler@uibk.ac.at)