

How do we educate Phd educators?



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Anders Ahlberg,
Study Director for PhD studies at LTH

60 Research Disciplines
600 PhD students
200 Main PhD supervisors
??? Co-supervisors

LUND UNIVERSITY

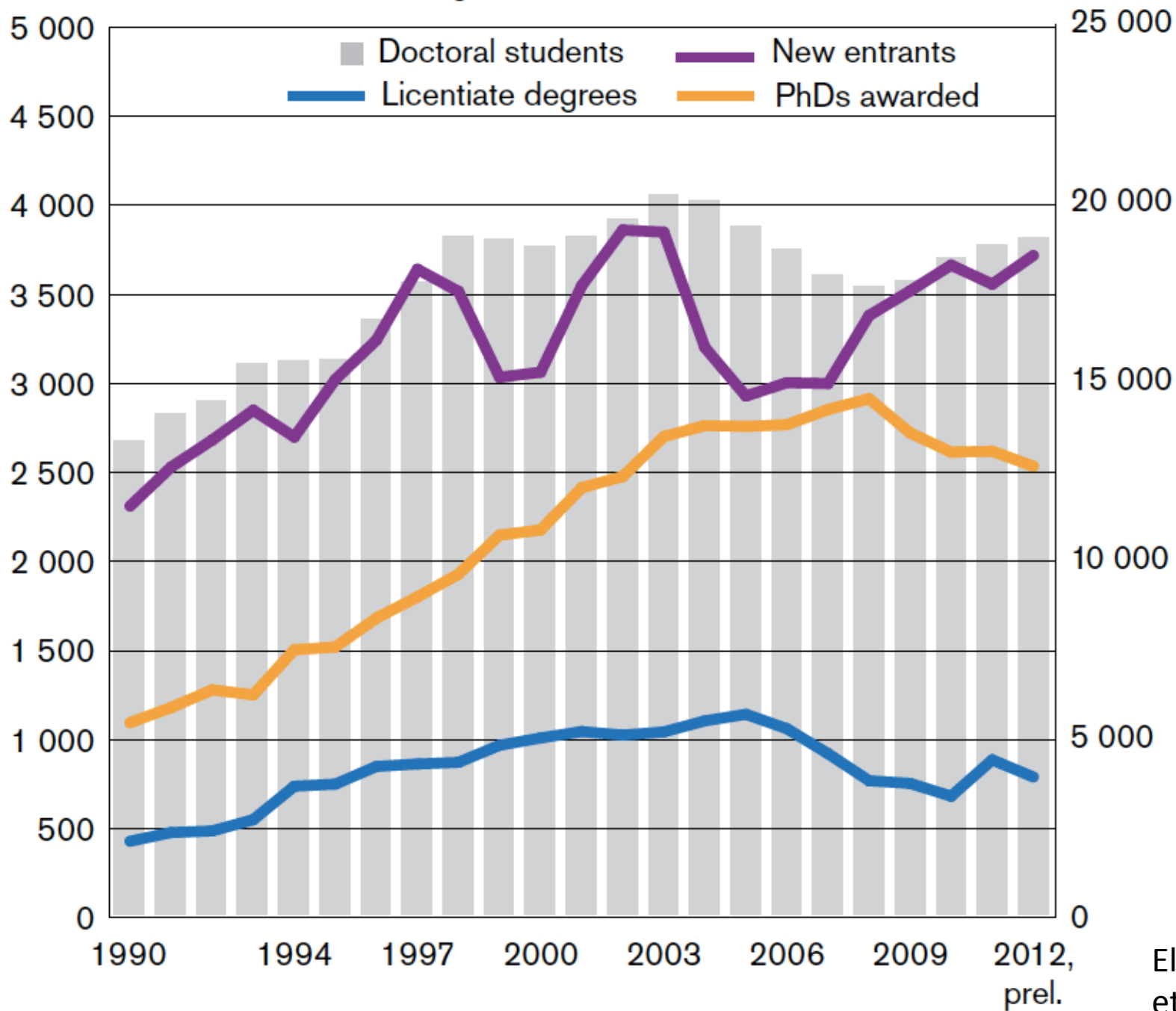
Centre for Educational Development, Faculty of Engineering

PhD Education Board



Number of new entrants and degrees

Number of doctoral students



Research education vs research production

100% Centralized

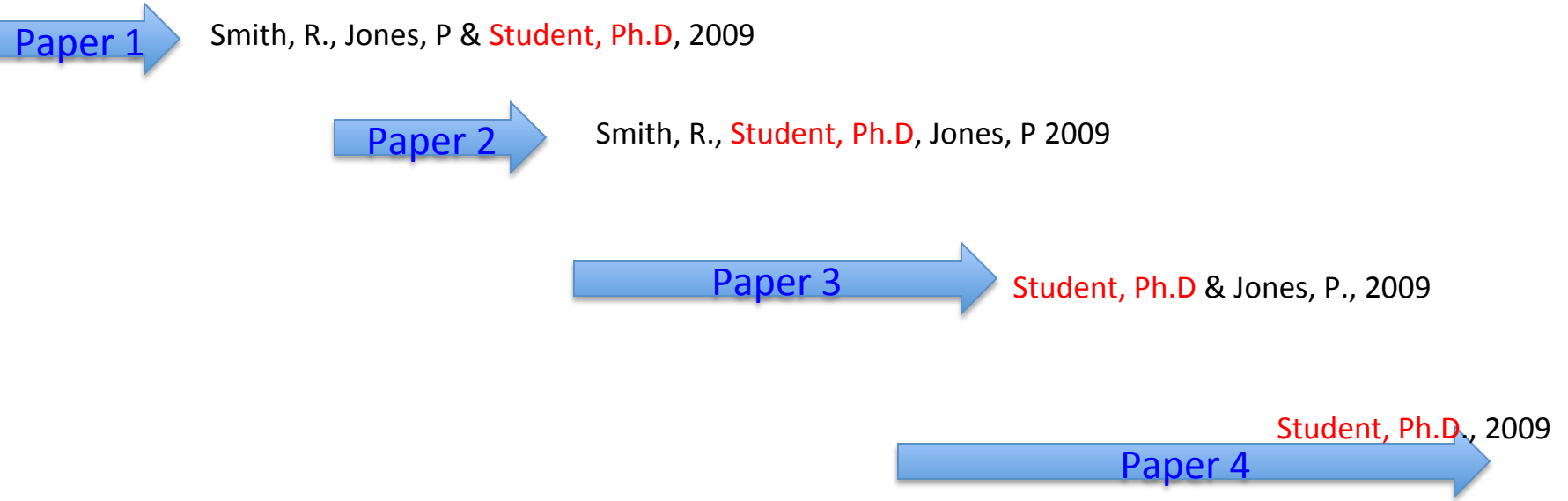
100% De-centralized



"Kohorts
going to school",
Not doing real
research tasks.

Student ordered by a
senior researcher to
perform and publish
real research.

Typical form of PhD thesis at LTH



Increasing size and complexity of task and student responsibility



Elmgren et al 2016: The Formation of doctoral education in Sweden

What shapes Swedish doctoral education?

Faculty funding	Main source of funding	Funding agencies Public and private organisations
Faculty board Department/Supervisor collegium	University institutes doctoral positions mainly through	Supervisors Research groups
The doctoral student Faculty board Department/Supervisor collegium	Research orientation/subject is decided by	Supervisors Funding agencies/ organisations
In competition Faculty board Department/Supervisor collegium	Enrolment	Hand-picking Supervisors
Defined by the supervisor		Defined by the supervisor



Existing local knowledge of PhD Education

Educators create new local knowledge on PhD training

International literature on PhD education

Know our Local PhD procedures

National framework: Objectives of PhD education

Recruitment and introduction of new PhD students

How do we educate Phd educators?

Active listening and structured supervision conversations

Creating sound research group conditions

Training in PhD assessment (dissertations)

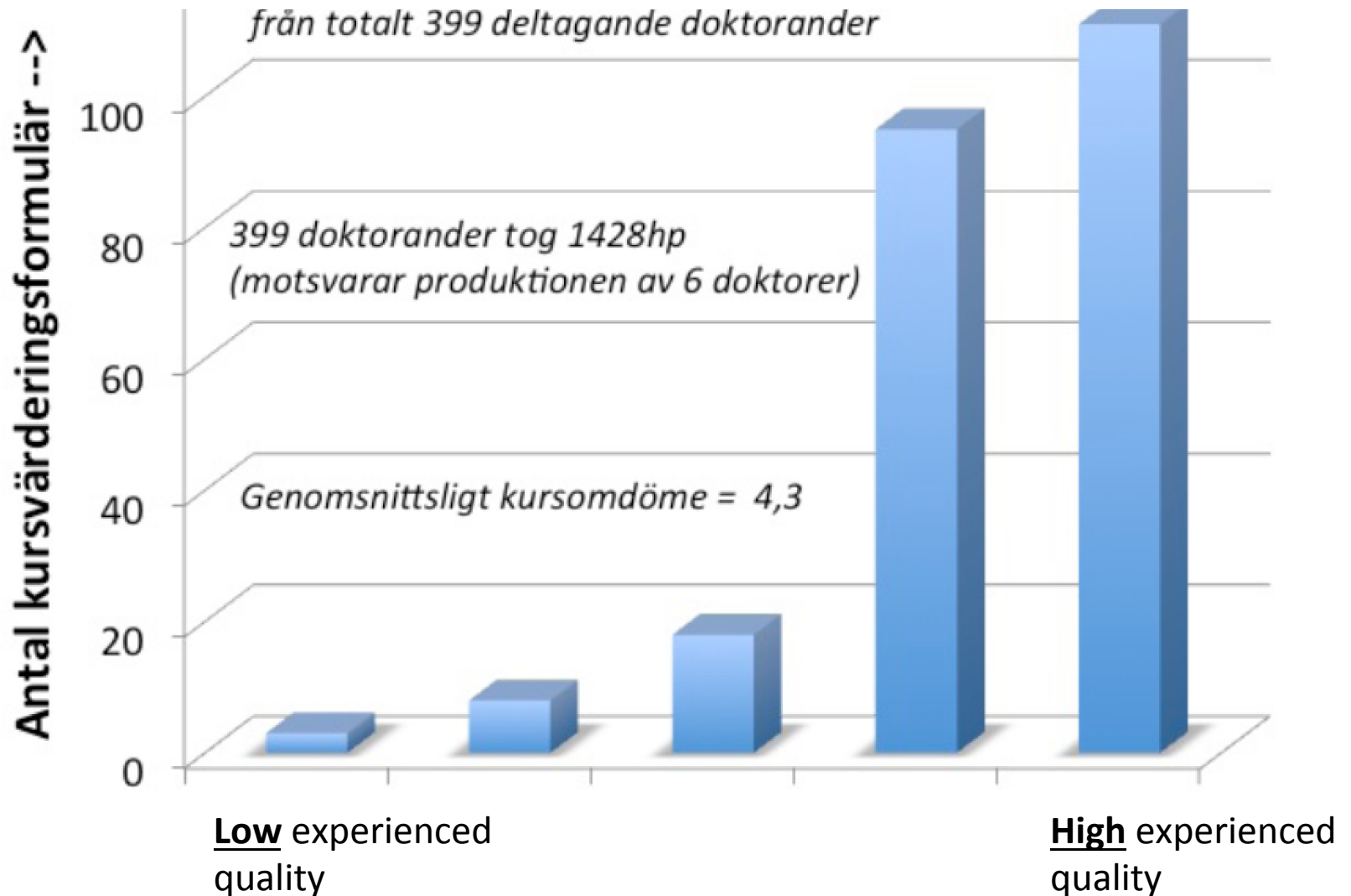
Ethics

What is it that supervisors actually do?

Interpersonal aspects in supervision

Supervising student manuscript writing

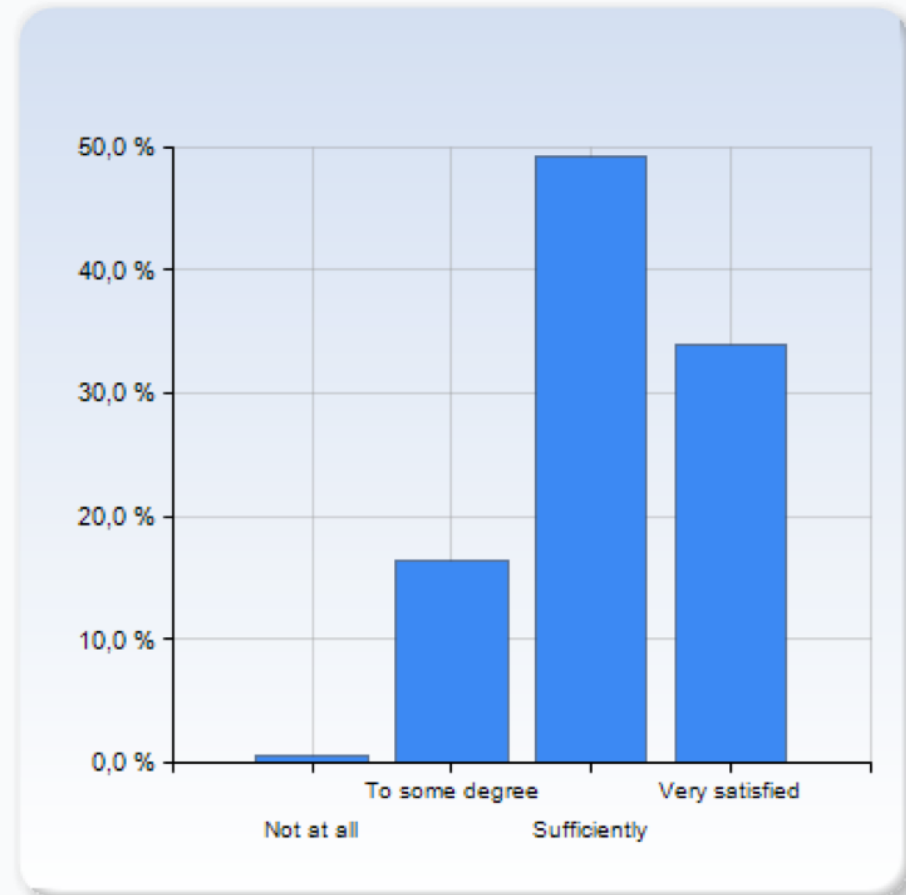
Accumulated PhD course evaluations



Overall satisfaction with PhD studies

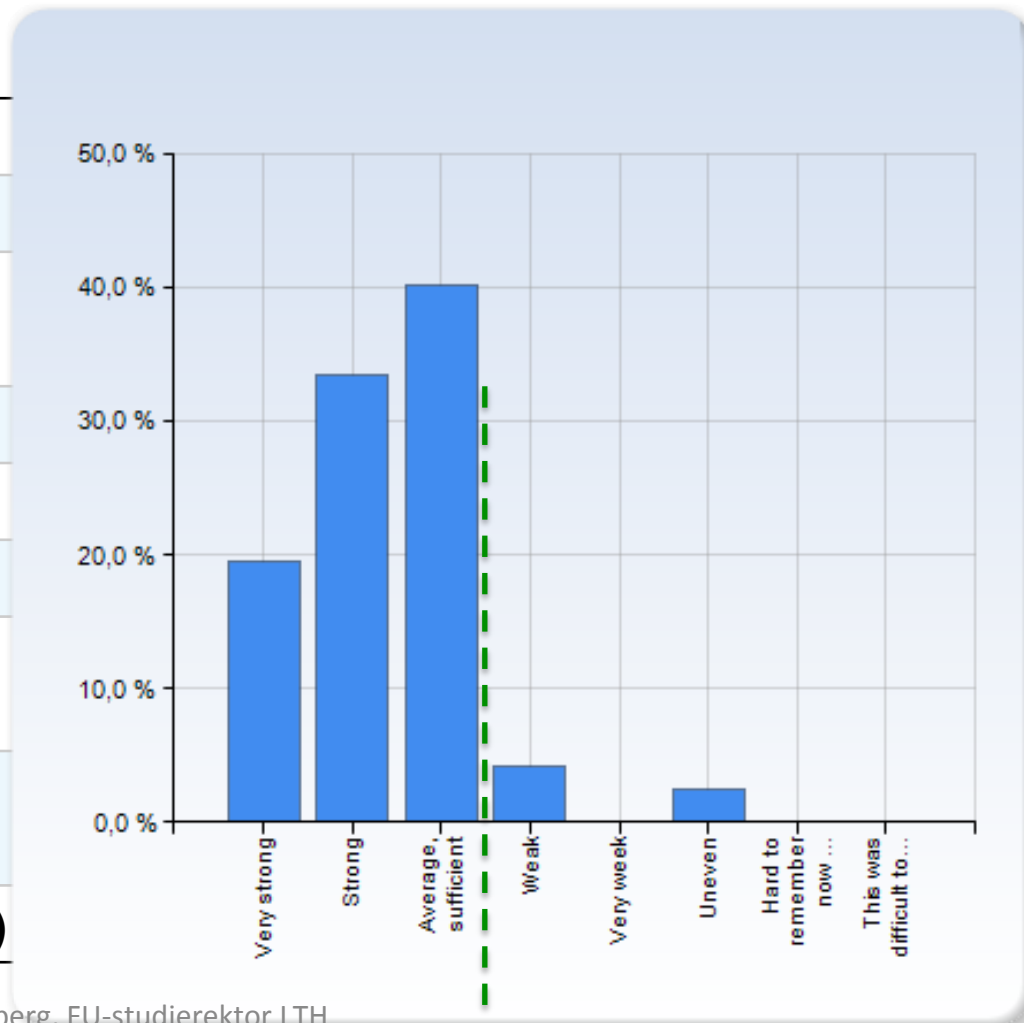
Before we go into detail: how satisfied are you, overall, with your PhD studies at LTH?

Before we go into detail: how satisfied are you, overall, with your PhD studies at LTH?	Number of Responses
Not at all	1 (0,5%)
To some degree	32 (16,4%)
Sufficiently	96 (49,2%)
Very satisfied	66 (33,8%)
Total	195 (100,0%)

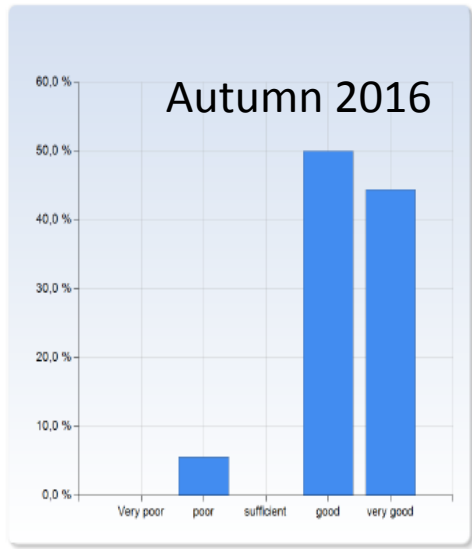
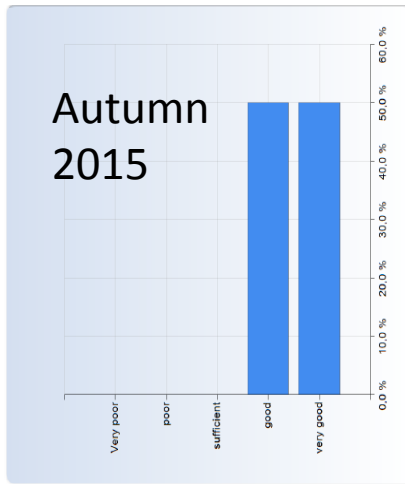
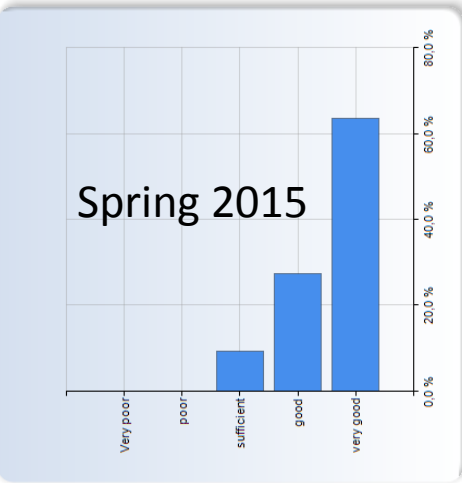
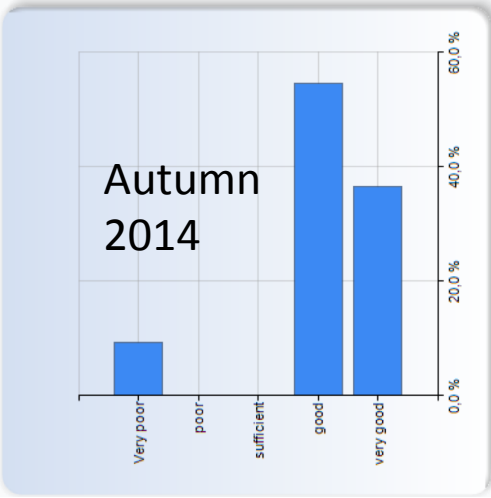
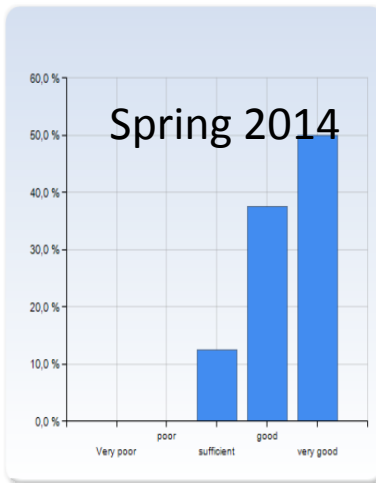
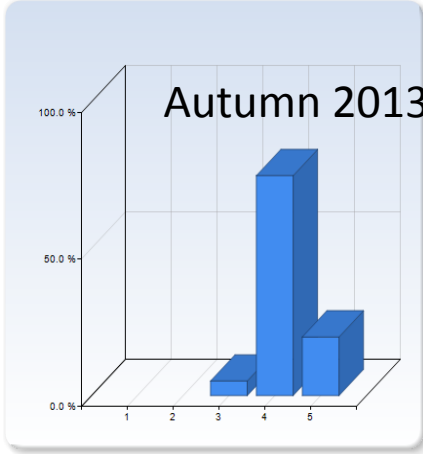
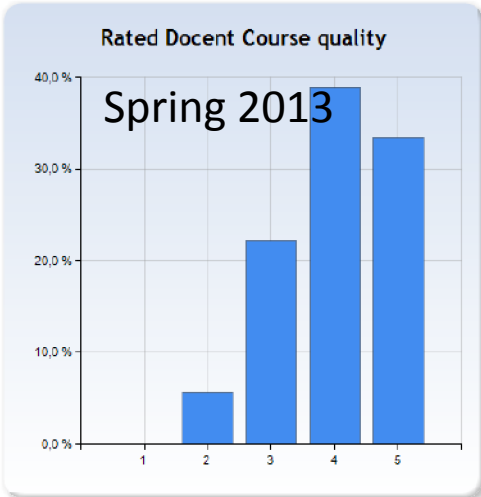


External Assessors judgment of scientific standard of PhD theses

	Number of Responses
Very strong	32 (19,5%)
Strong	55 (33,5%)
Average, sufficient	66 (40,2%)
Weak	7 (4,3%)
Very week	0 (0,0%)
Uneven	4 (2,4%)
Hard to remember now afterwards	0 (0,0%)
This was difficult to judge	0 (0,0%)
Total	164 (100,0%)



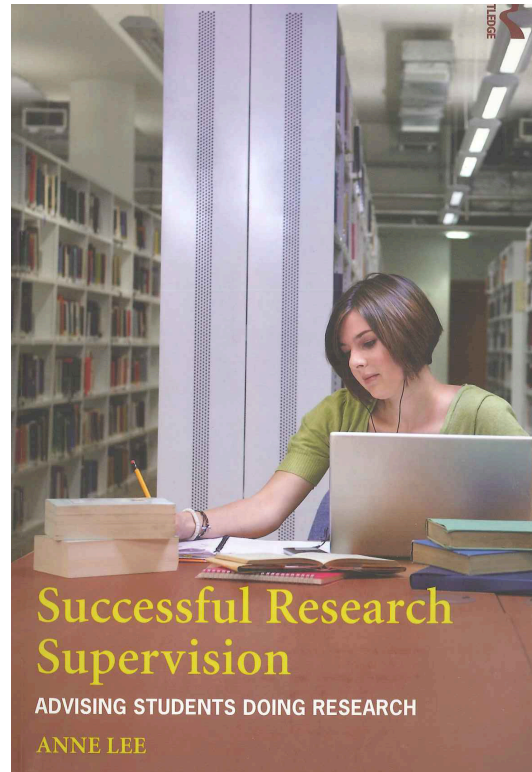
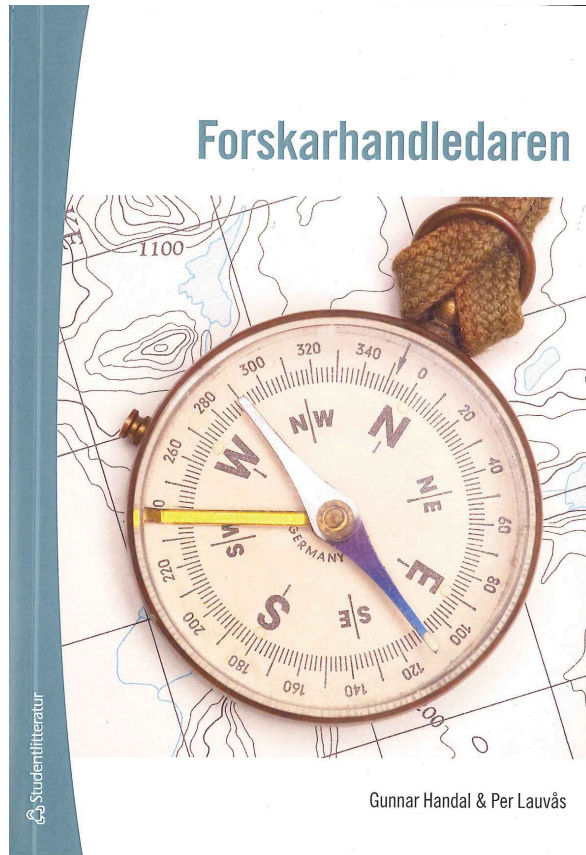
Supervision course evaluations

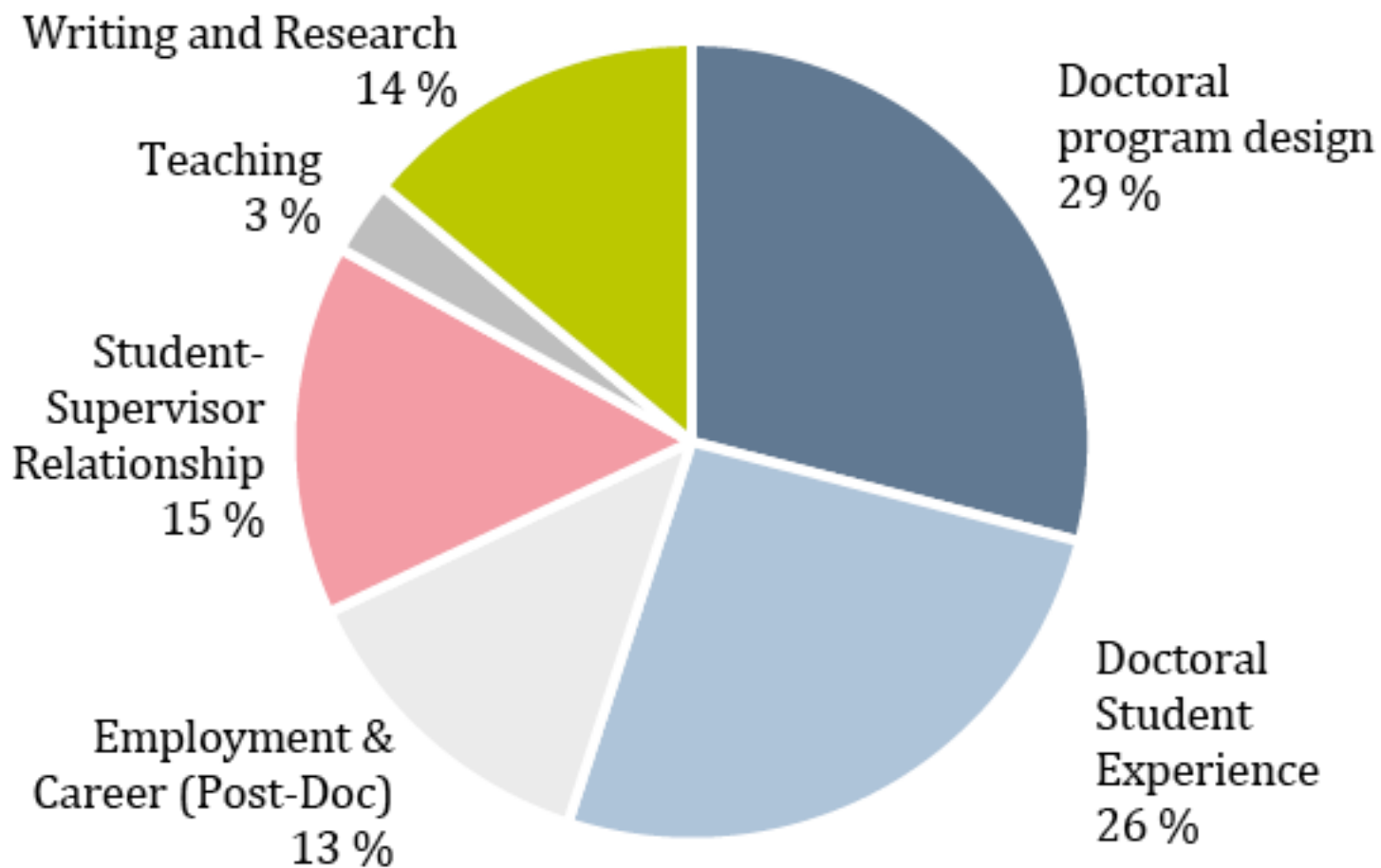


	Mean	Standard Deviation
	4,6	0,7



Main stream text books on PhD supervision

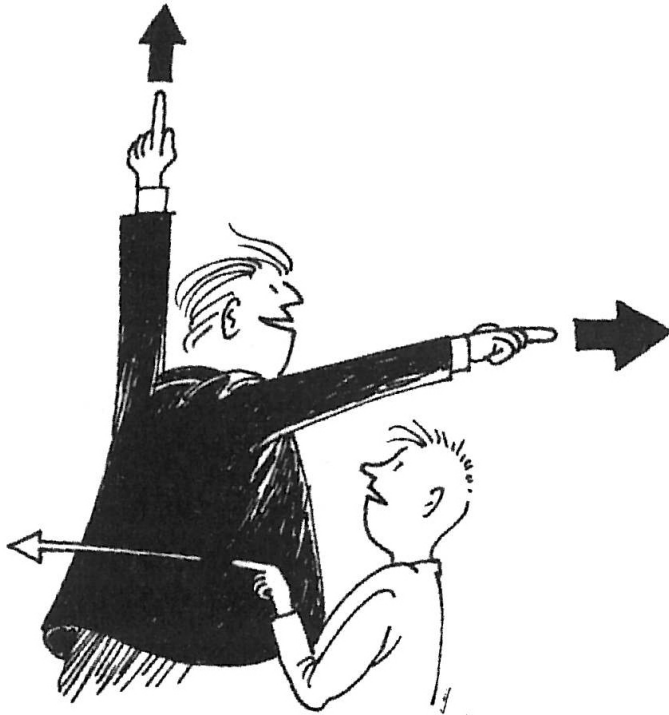




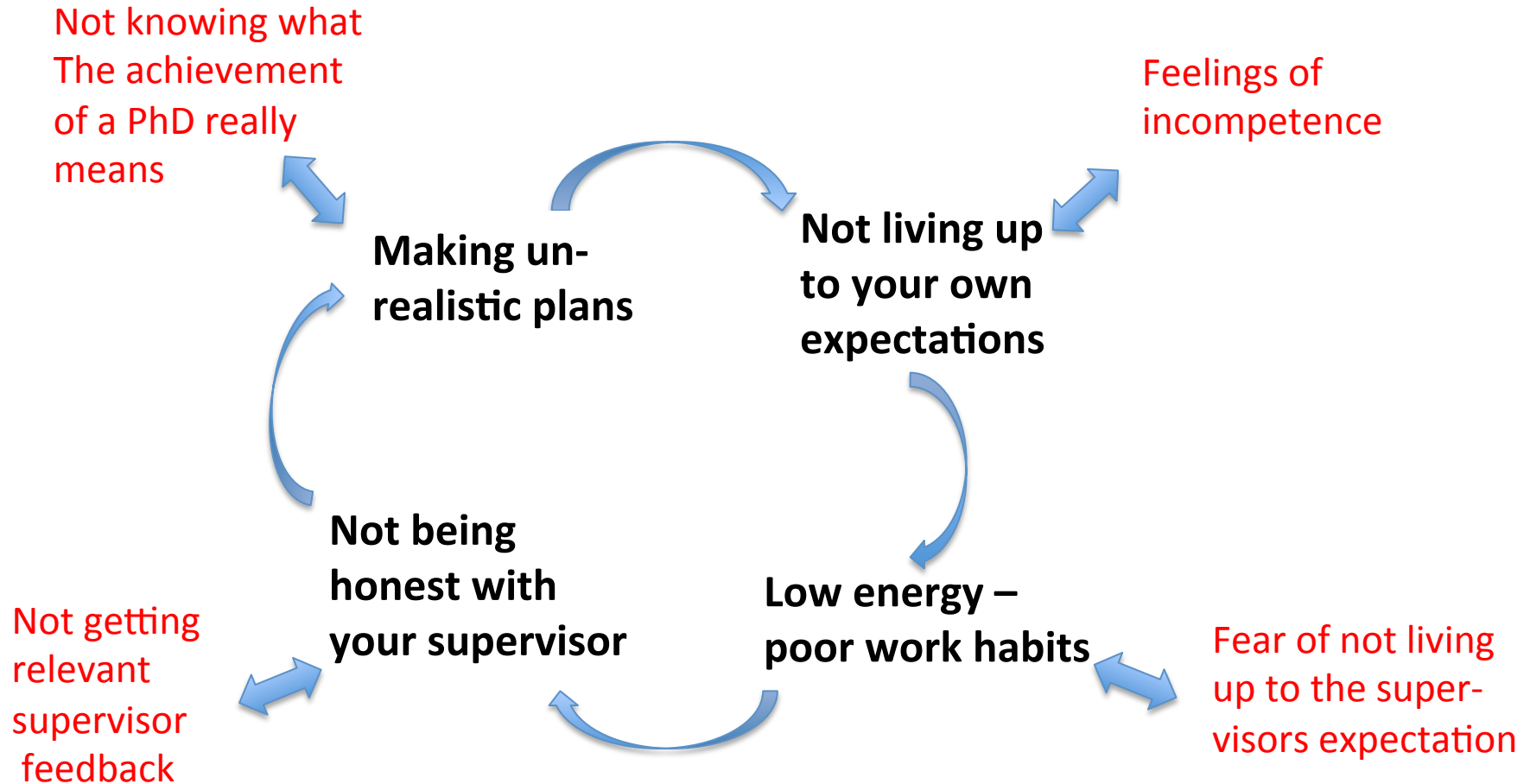
Warning indicators

- Postpone supervision meetings
- Excuses for unfinished work
- Focus on next task, not the current
- Frequent change in topic or method
- Filling work time with _____ (escaping)
- Resisting advice or criticism
- Procrastinating on writing
- Intellectualising practical problems
- Blaming others for shortcomings
- Failing to integrate earlier work

A trap for supervisor(s):



A trap for the student – the vicious circle



Can be broken through honesty, acceptance, understanding and support.

Active listening

- You focus on the other person
- Curious (like a child)
- Empathic understanding
- Allow the person to finish before you talk

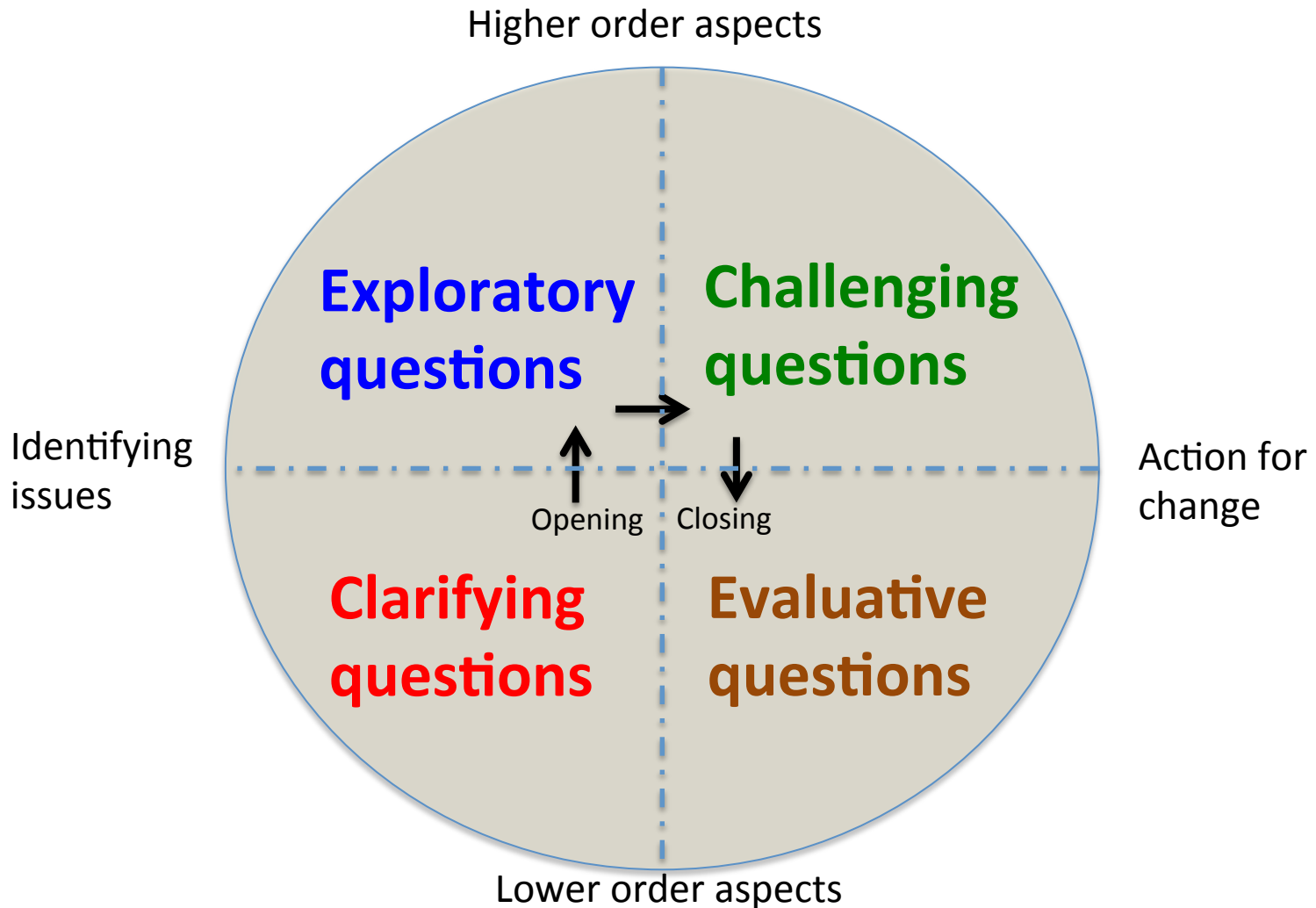


Just listening

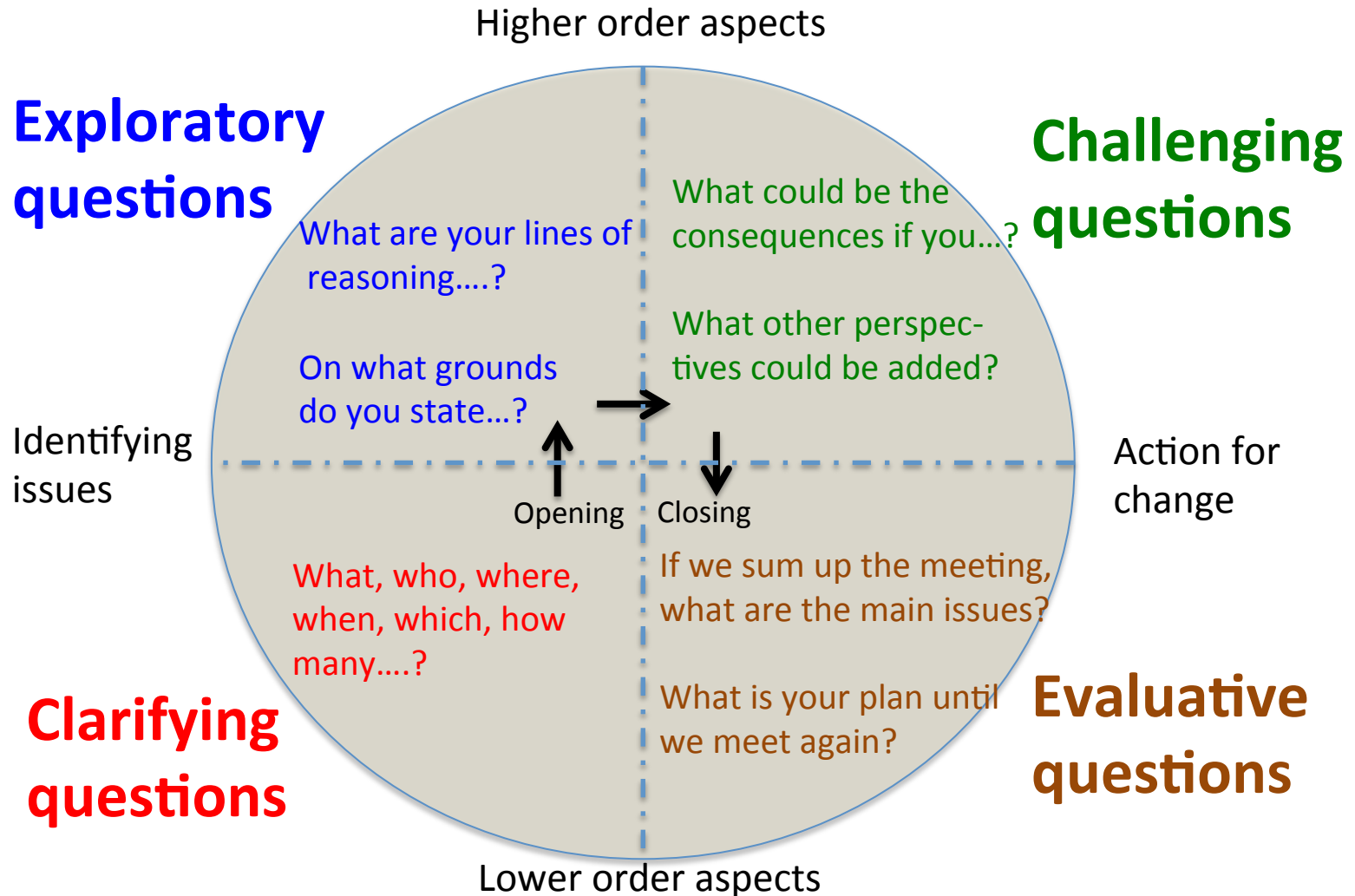
- Your attention is elsewhere
- You are thinking of what to say next
- Waiting to tell your own story
- Interrupting



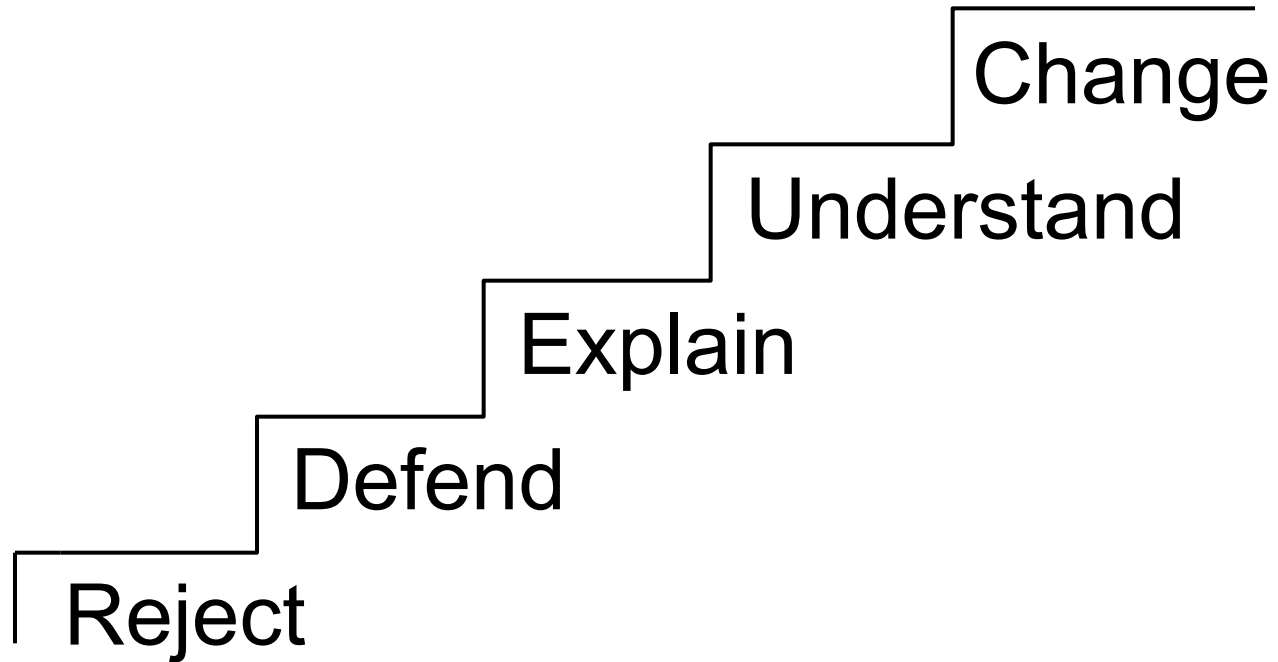
Sorting it out with effective dialogue



Sorting it out with effective dialogue



Reactions to feedback



Feedback skill exercise

Supervisor 1: The logic of ABC in the paper is sloppy, improve!

Supervisor 2: Ideas A and B seem congruent to me, but I could not really follow how that could lead to your conclusion C, could you please clarify this?



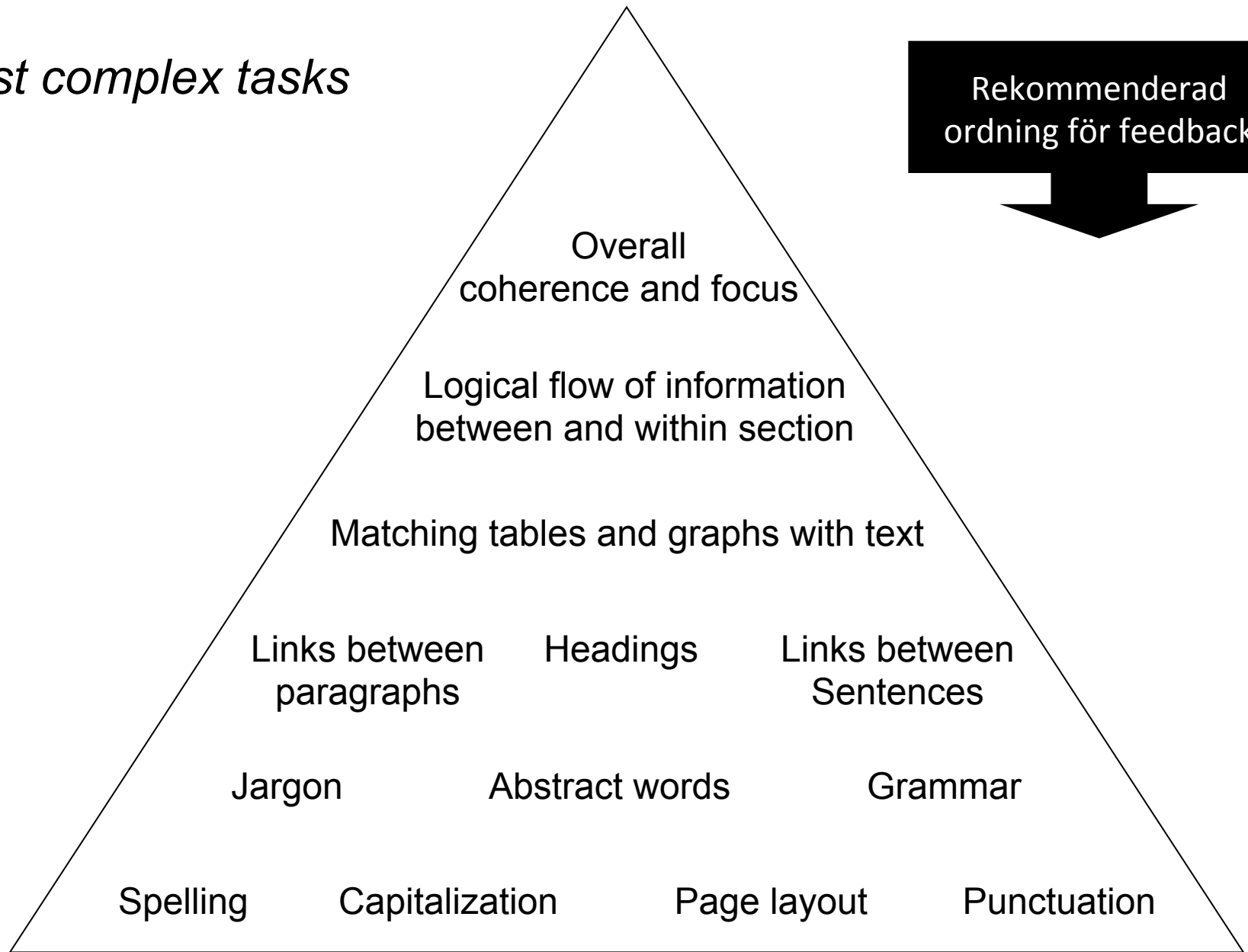
Efficient feedback is..

- Subjective, i.e., represents *your* reaction
- Balanced, negative & positive
- Concrete, not general
- Helpful, not judgmental
- Immediate, not “bottled up irritation”
- Questions, rather than statements



Most complex tasks

Rekommenderad
ordning för feedback

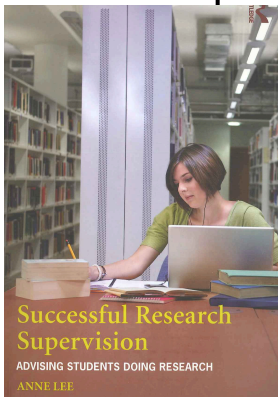


Least complex tasks

Från: Handal, G., & Lauvås, P. (2008). *Forskarhandledaren*. Lund: Studentlitteratur. Urspr. Brown, R. (1994) The "big picture" about managing writing. In O. Zuber-Skerritt & Y. Ryan (Eds.), *Quality in postgraduate education*. London: Kogan Page

Approaches to doctoral supervision: – what supervisors actually do

	1 Functional	2 Enculturation	3 Critical thinking	4 Emancipation	5 Relationship development
Supervisors' activity <ul style="list-style-type: none"> ▪ Tasks ▪ Courses ▪ Schedules ▪ Planning ▪ Checks progress 	<ul style="list-style-type: none"> ▪ Opens doors ▪ Being a broker ▪ Tasks related to academic rolls ▪ Presents the "canon" of the subject discipline ▪ explains who's who ▪ 	<ul style="list-style-type: none"> ▪ Challenges ▪ Criticises ▪ Judges ▪ assesses ▪ Prompts explanations, argumentations ▪ 	<ul style="list-style-type: none"> ▪ Acts as mentor ▪ Supports student growth and self efficacy ▪ Supports reflection "in" and "on" the discipline ▪ Convey knowledge of the academic system ▪ 	<ul style="list-style-type: none"> ▪ Focuses on personal and professional relations and experiences ▪ Discusses and balances supervisor/student roles ▪ Boosts students confidence ▪ 	



Approaches to doctoral supervision: what supervisors shouldn't do

	1 Functional	2 Enculturation	3 Critical thinking	4 Emancipation	5 Relationship development
Examples of better and worse supervision	- Uses student as work force for own interests	- Forces student to subordinate roll in own "academic empire"	- Breaking down student through non-constructive criticism	- Emancipation by neglect...	- Double relationships (professional and private relationship)

Modified substantially by Anders Sonesson (LU Faculty of Medicine)

After Lee, A. (2008). How are doctoral students supervised? Concepts of doctoral research supervision. *Studies in Higher Education*, 33(3), 267-281.



Demonstrate broad and up-to date-specialist knowledge and a systematic understanding of ones own field of research

Familiarity with research methods in general and with methods in the specific field of research in particular

Ability to engage in scholarly analysis and synthesis and in independent critical assessment of new complex phenomena

Ability to identify and formulate issues, critically, independently and creatively, and proceed research with scientific precision

Ability to plan and use appropriate methods within specified time limits, and to scrutinize and evaluate such work

Demonstrate, in a dissertation, ability to make a substantial scientific contribution

Ability to present and discuss research..with authority ..orally and in writing.. ..in national and international contexts

Ability to identify the need of further/future scientific knowledge

Demonstrate potential to contribute to the development of society, and support the learning of others

Demonstrate intellectual independence and scholarly integrity, and an ability to make ethical assessments

Demonstrate deep insight in the potential and limitations of scholarship and research, its role in society and responsibility for how it is used

**Compulsory
learning
outcomes
of all PhD
Education
programmes
in Sweden**



Study plans for PhD-studies

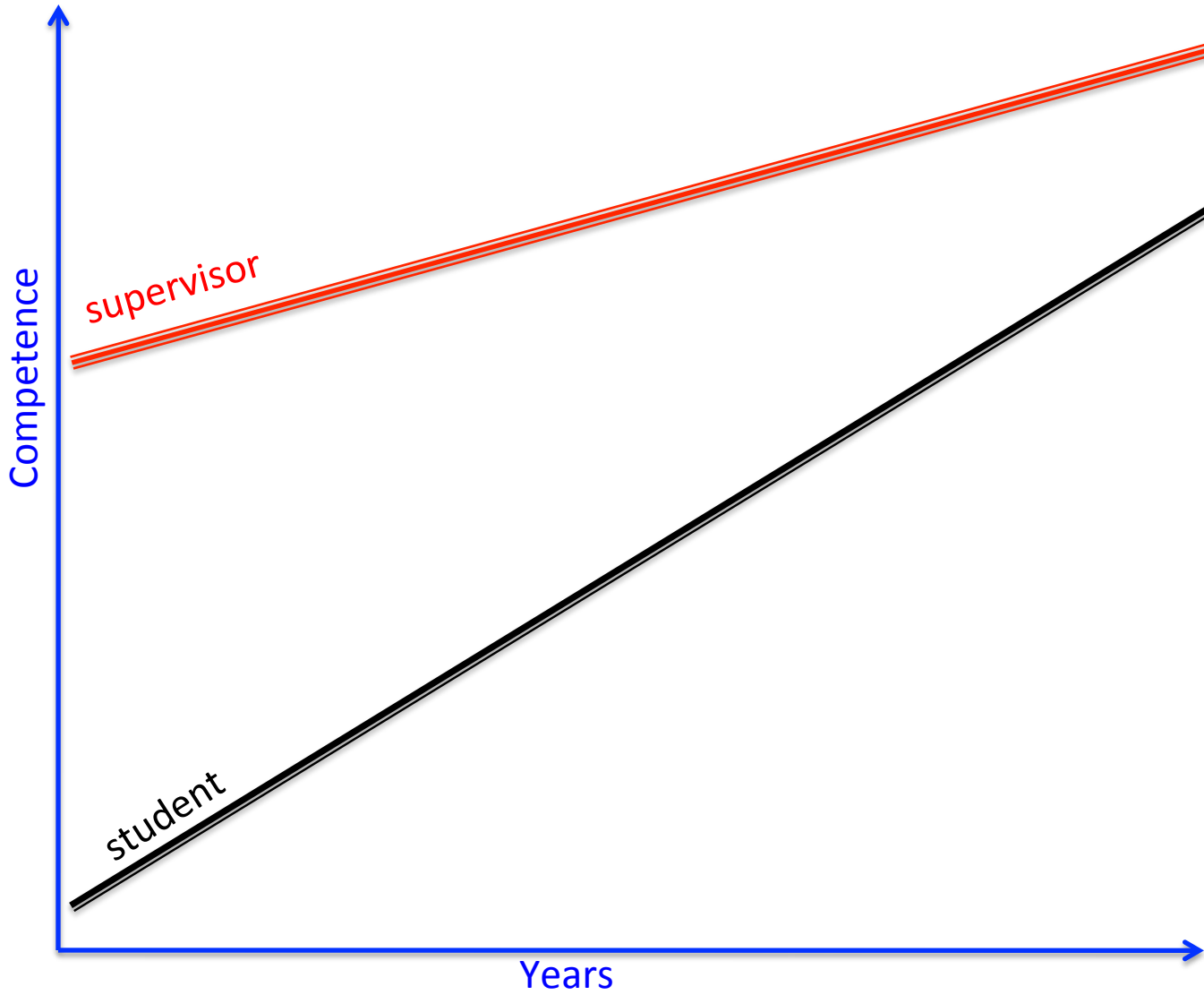
General Study-plan (**subject**) <http://www.lth.se/forska-utbilda/doktorand/studieplaner/allmstudieplaner/>

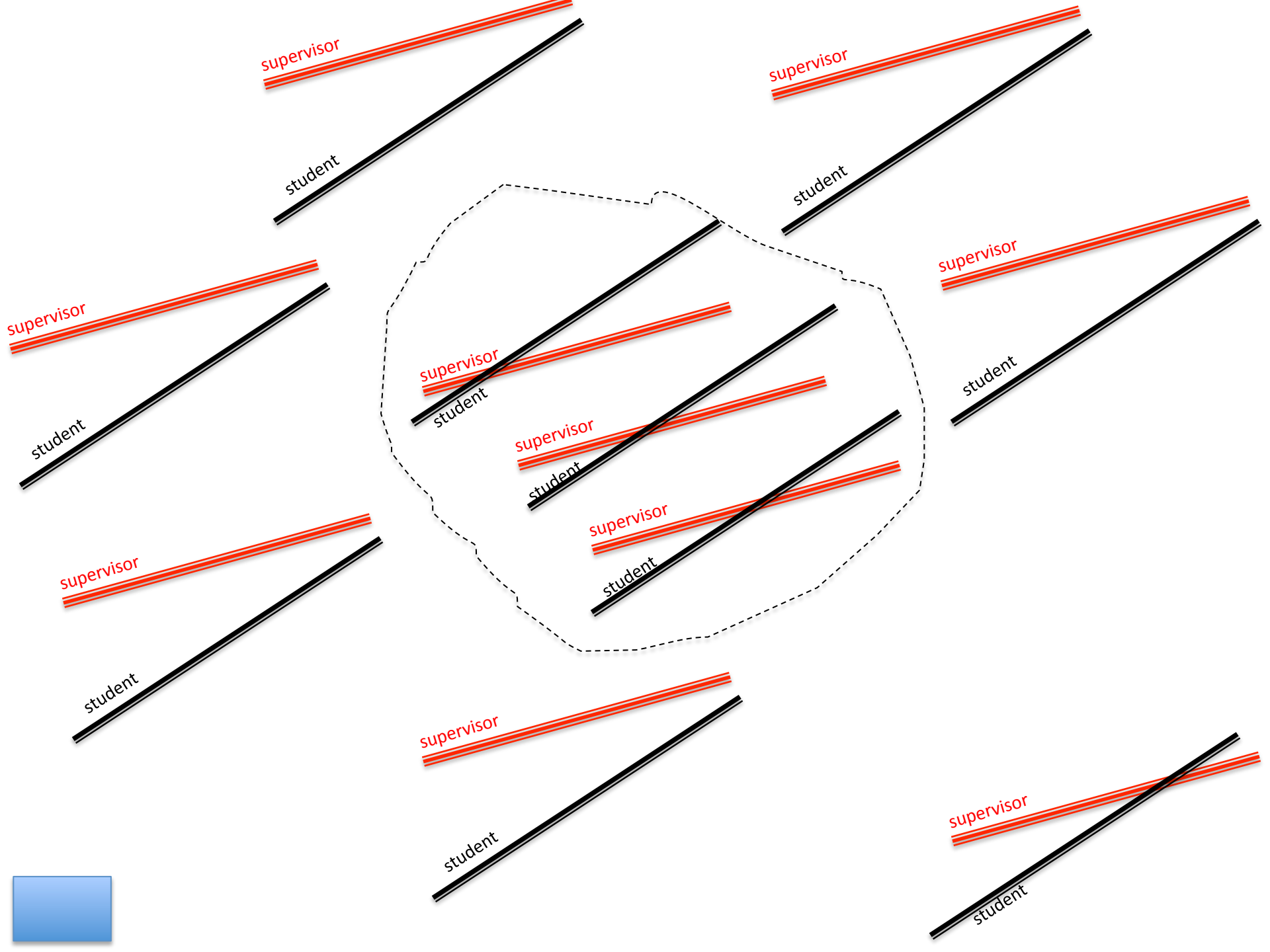
1. Description of subject discipline
2. Purpose & Aims of postgraduate studies at LTH
3. Objectives
Learning outcomes according to the Higher Education Ordinance SFS 1993:100
4. Eligibility (admission)*
5. Selection
6. Requirements for degree*
7. Course requirements*
8. Thesis requirements (publication)

Individual Study plan (**you**) <http://fukurser.lth.se/isp/>

- 2 Supervisors defined
- Supervision extent defined
- Degree desired (PhD or Licentiate)
- Financing of project
- Departmental duties
- Work place requirements

- Development:
 - Completed & remaining parts of courses & thesis
 - Research communication
- Update at least yearly







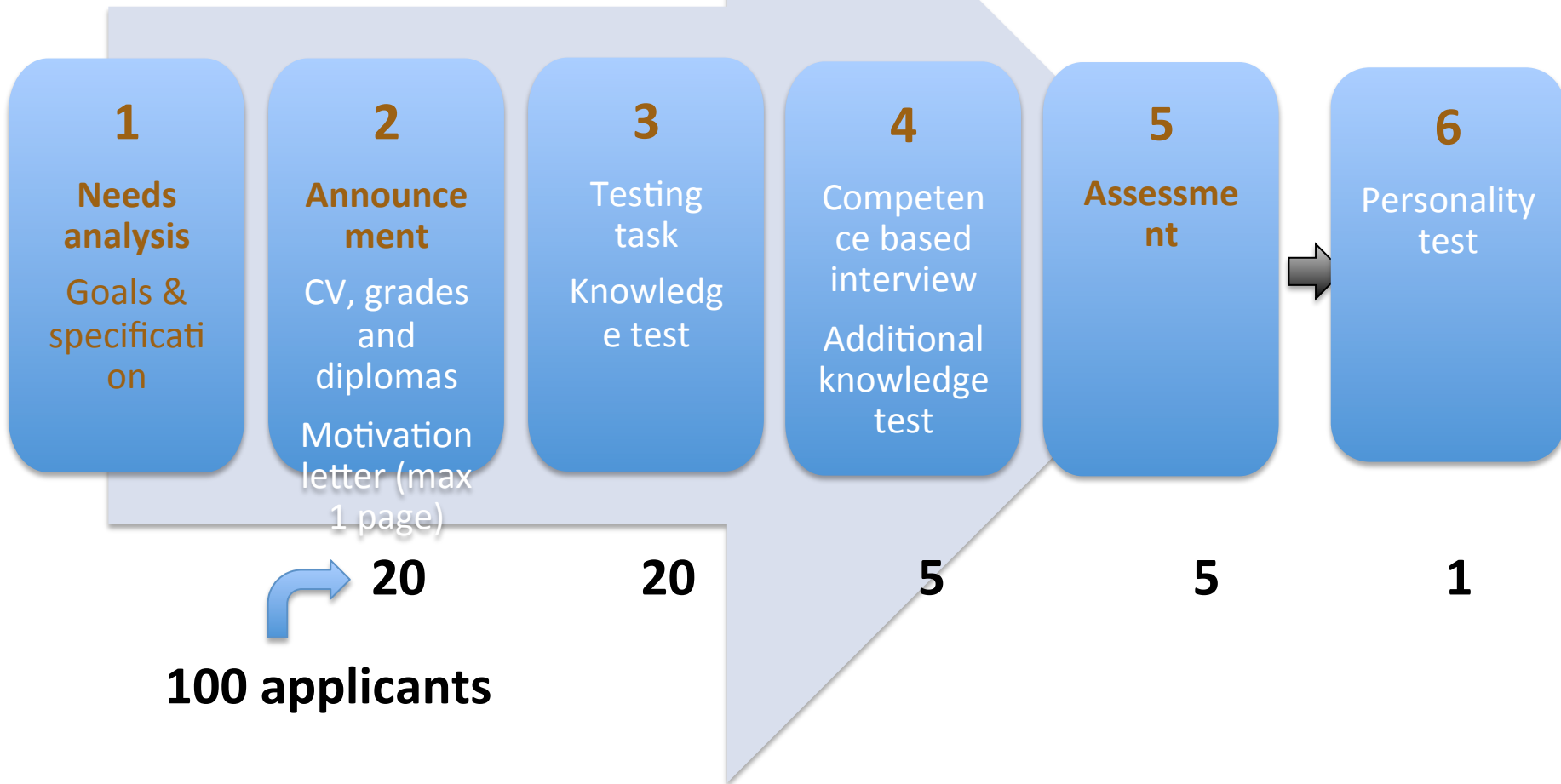
LUND
UNIVERSITY

Recruiting doctoral students

FACULTY OF SCIENCE | FACULTY OF ENGINEERING (LTH)




Strategy



Ref: Malin Lindelöw, *Kompetensbaserad personalstrategi, Natur och Kultur, 2013*

Components of doctorateness

possible template for PhD dissertation assessors

Contribution to knowledge	Stated gap in knowledge 	Explicit research questions	Conceptual framework
Conceptual conclusions			Explicit research design
Research questions answered			Appropriate methodology
Coherent argument	Full engagement with theory	Clear/precise presentation	“Correct” data collection



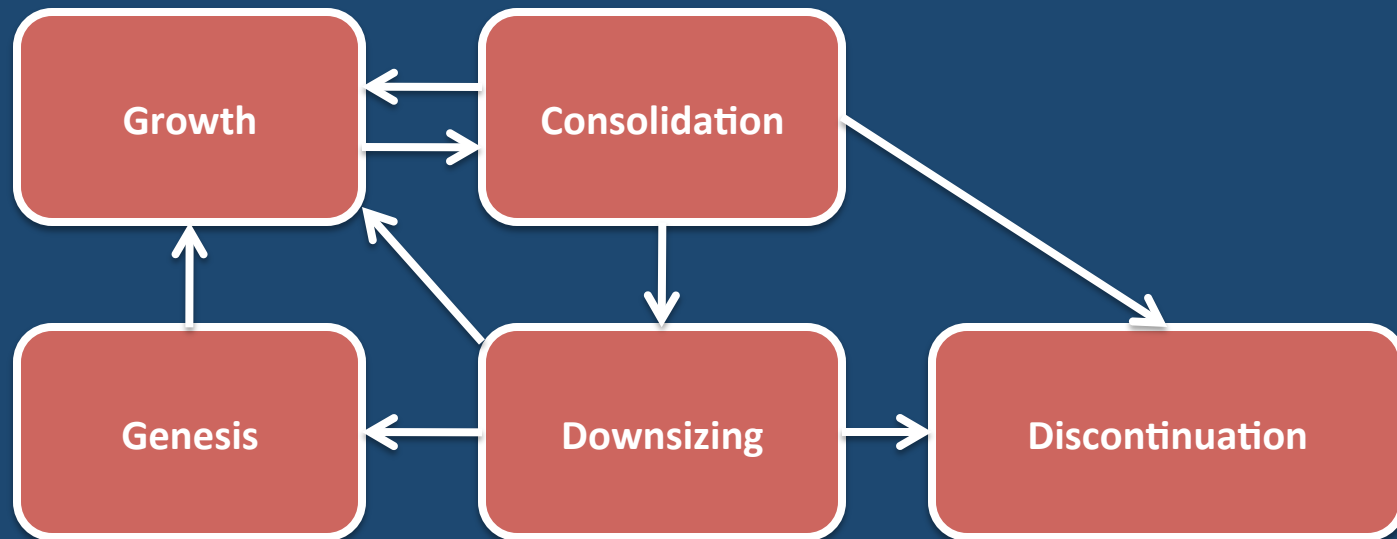
Components of doctorateness

	Stated gap in knowledge		

After Trafford & Leshem 2008

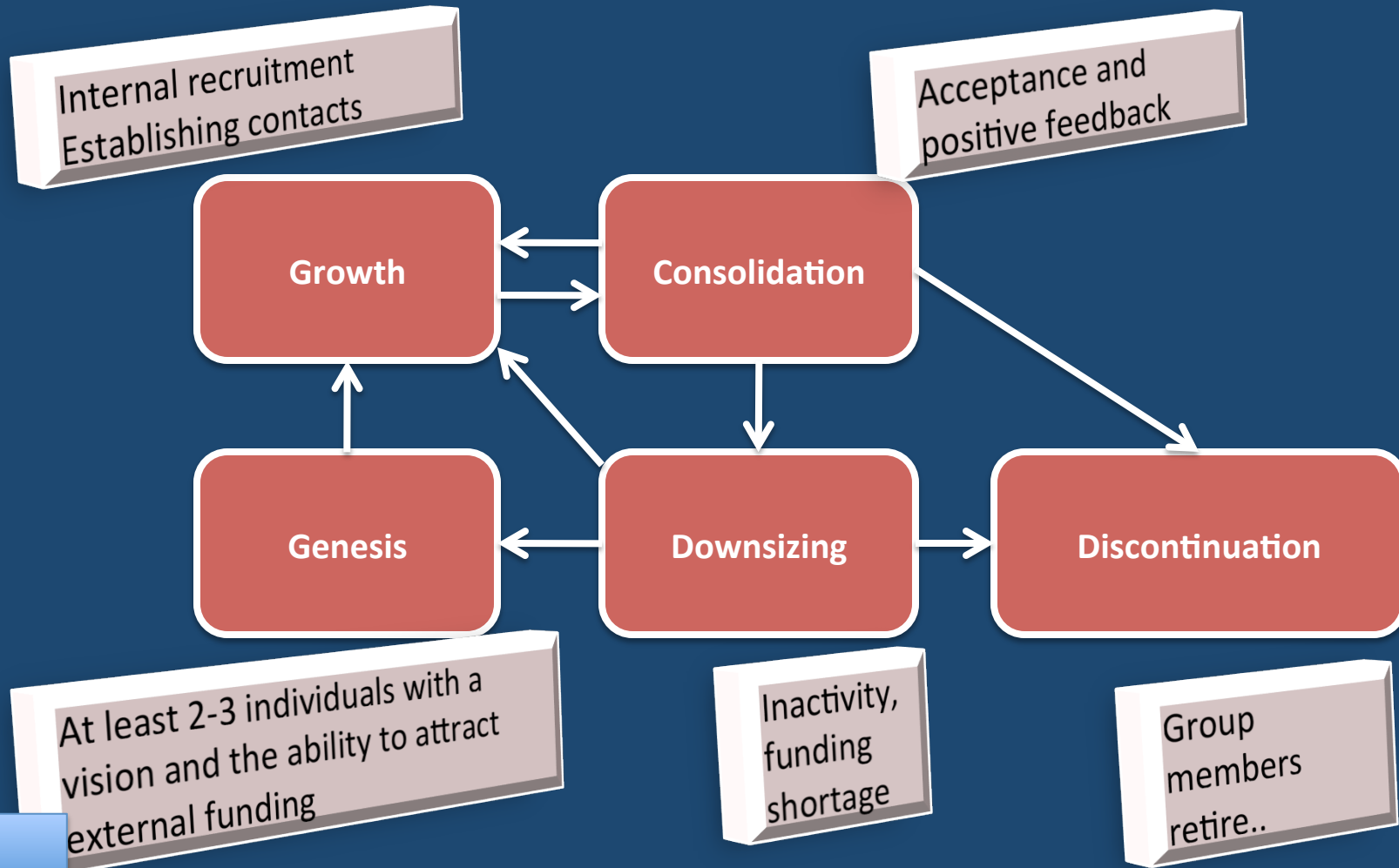
	Stated gap in knowledge		
	Opponent's questions:		
	How did you identify the gap you investigated?		
	Why do you believe the gap existed?		
	Why was this gap not bridged before by others?		

Lifecycle of a research group



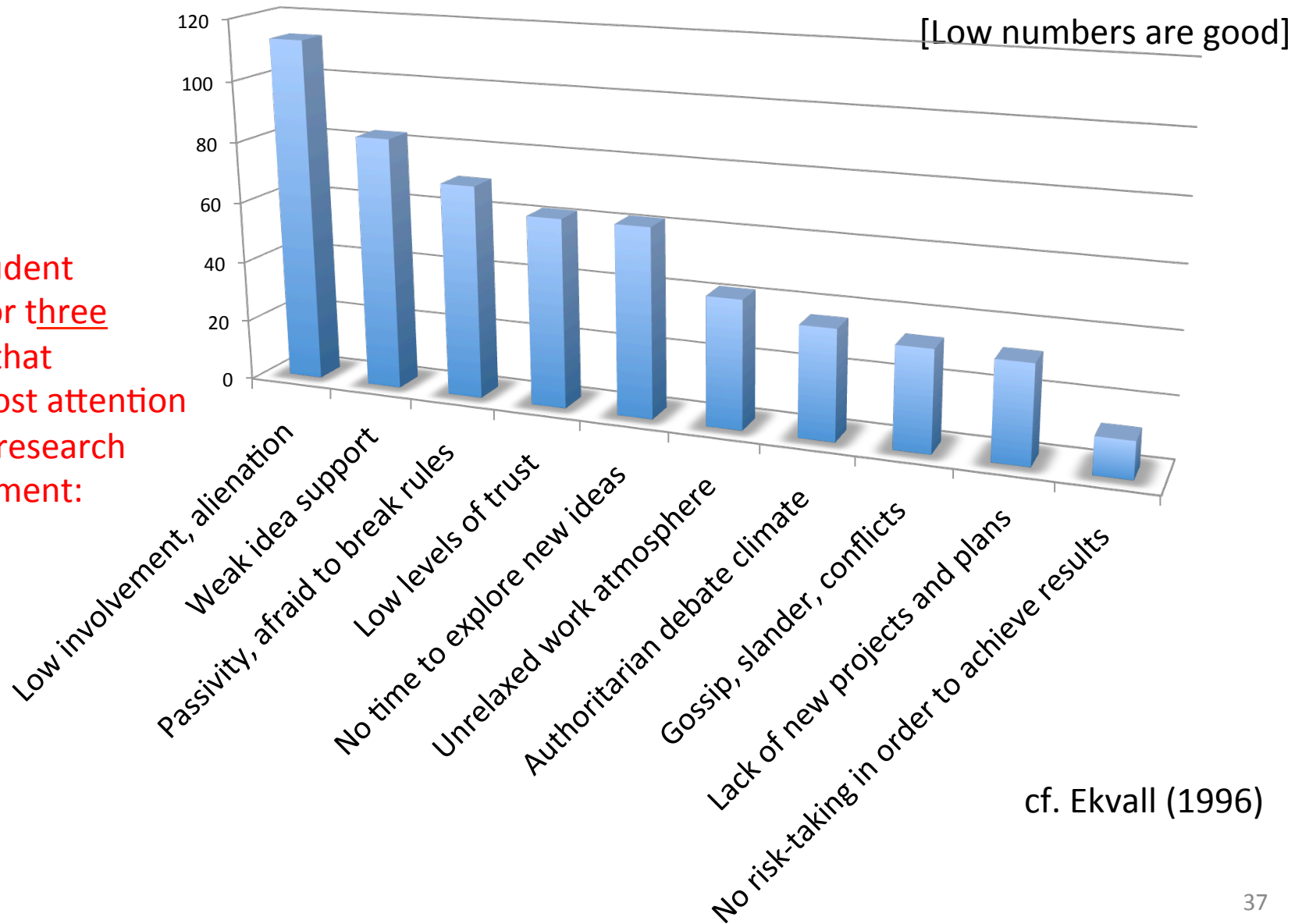
Example from 4 case studies

Software Engineering, Electromagnetic Theory , Biotech, Economic Demography



Innovation climate challenges in PhD student research environments, LTH

Each student
voted for three
factors that
need most attention
In their research
environment:



cf. Ekvall (1996)