



TECHNISCHE
UNIVERSITÄT
DRESDEN

Faculty of Environmental Sciences, Department of Forest Sciences

Are students sufficiently prepared for learning?

Experiences from a survey among Bachelor students and lecturers at Technische Universität Dresden, Germany

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1. Background

Background

- Students: complaining about excessive demands at the begin of their study programs,
 - Lecturers: concerned about increasing deficits of knowledge that should have been imparted and/or acquainted at school
- survey among for students of the first year Bachelor Program in forest sciences and the lecturers of the department, respectively.

2. Aims and Research Questions

Research questions

- How do student beginners feel when starting their studies?
 - How do they estimate their professional and generic competences?
 - What are the reasons to study forest sciences – in general and at the campus in Tharandt, respectively
 - What about their motivation for performance?
- What does „being prepared for studies“ mean from the lecturers' point of view?
 - Which characteristics, skills and competences should students have?
 - How far students dispose of these?

3. Methods

Structure of the questionnaire for lecturers

- General recommendations for filling in the questionnaire
- Transition phase from Gymnasium (grammar school) to the University
- Ability to study – requested and in reality
- Length of teaching experience

Structure of the questionnaire for **students**

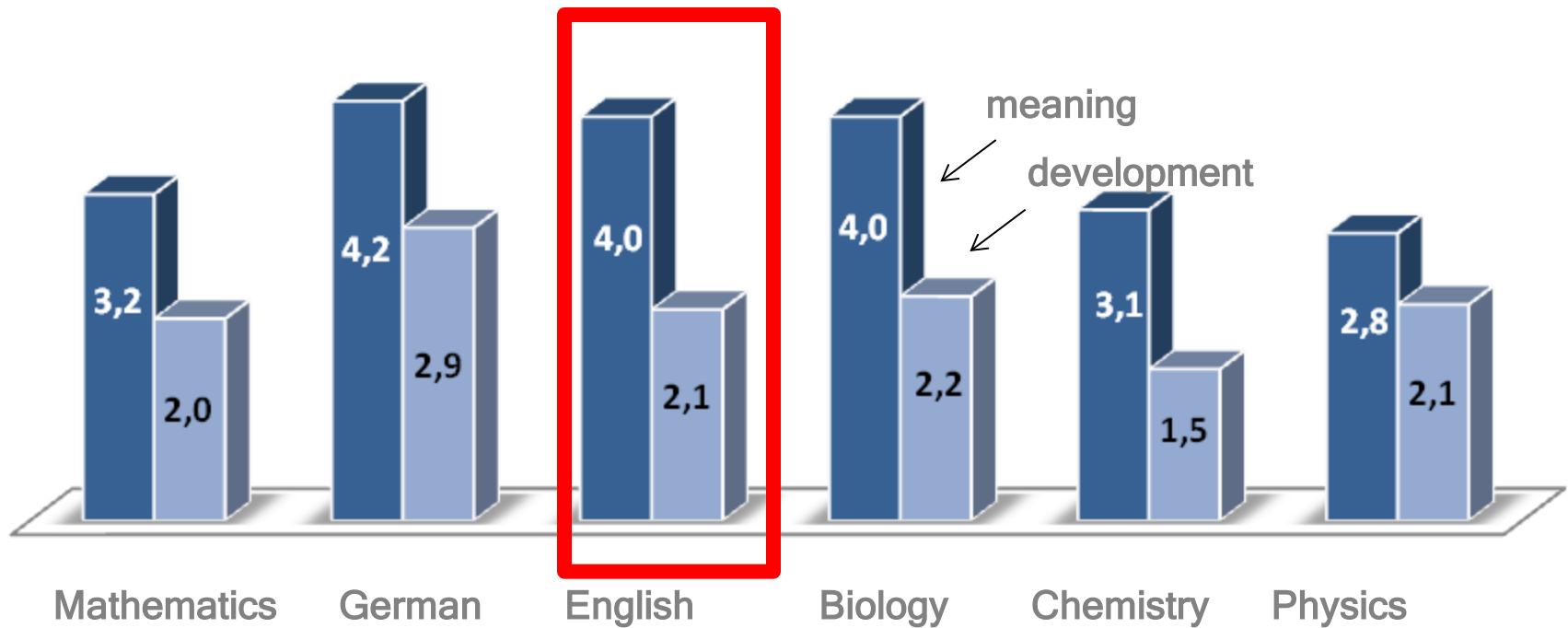
- General recommendations for filling in the questionnaire
- Five blocks, addressing the following issues
 - (a) attainment of the university entrance degree (Abitur)
 - (b) transition from school the University
 - (c) experiences during the study program
 - (d) motivation for performance
 - (e) personal data

4. Results

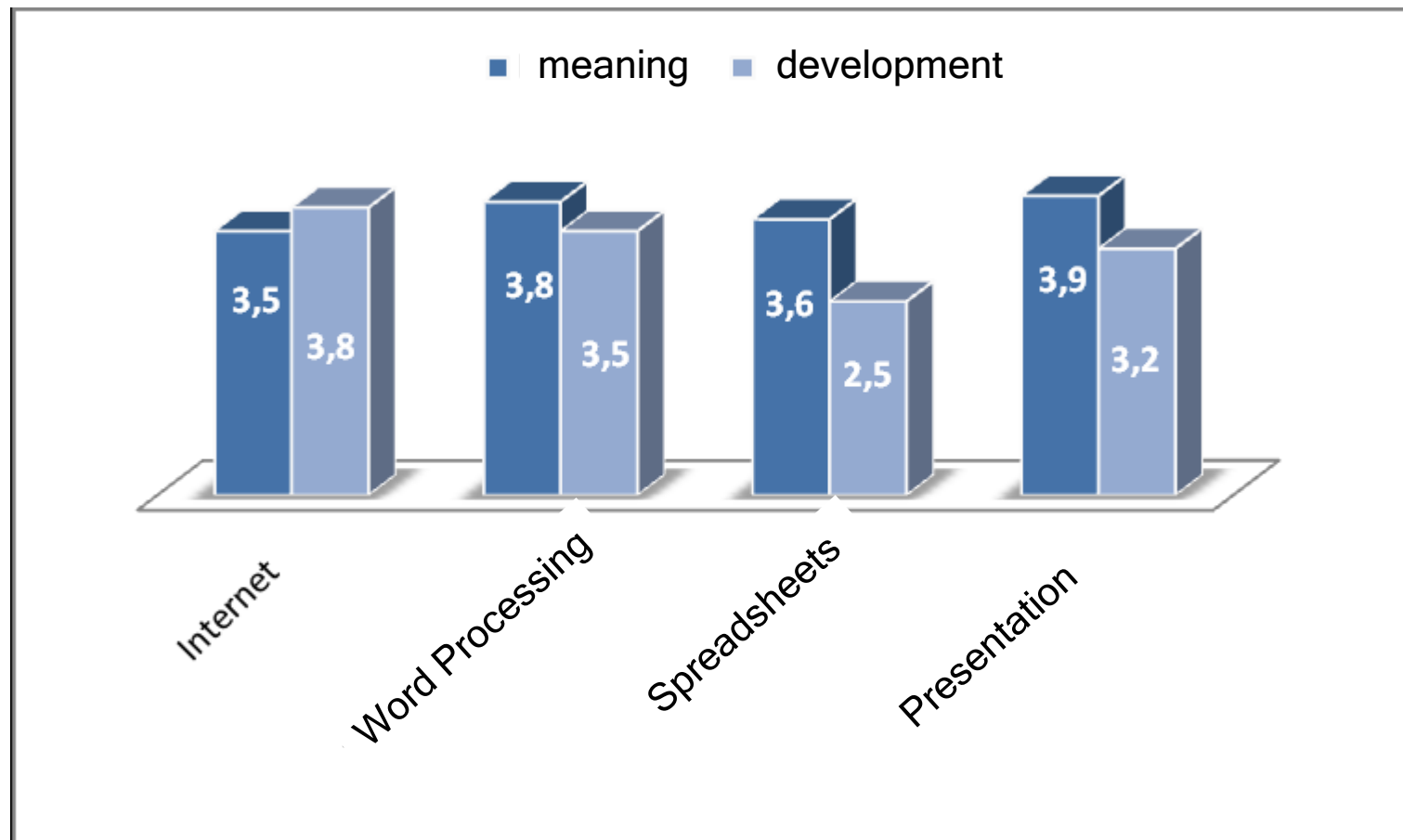
4. Results: Lecturers

- Return rate: 14 out of 21 questionnaires, 13 (62%) analyzable
- Statistically not reliable – but nonetheless interesting

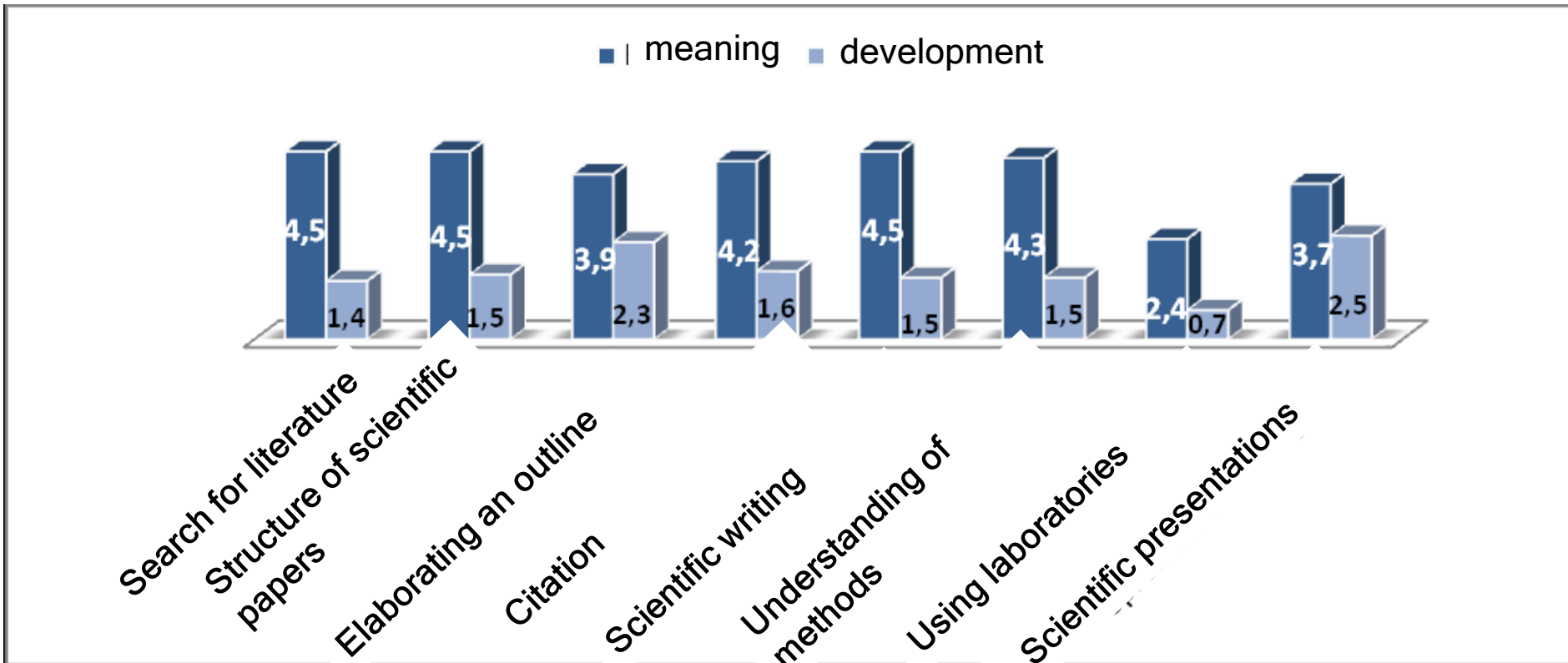
Meaning and „real“ development of the school subjects



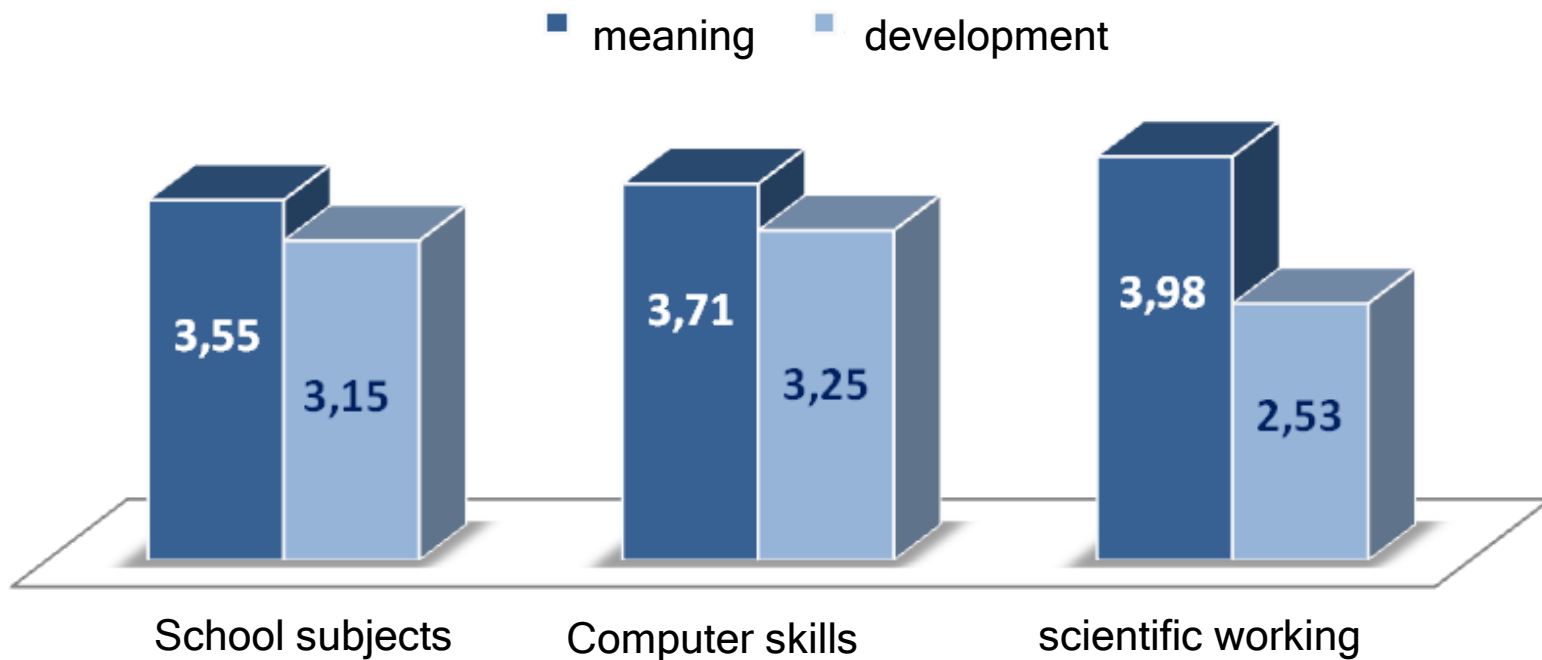
Computer skills



Meaning and development of scientific working



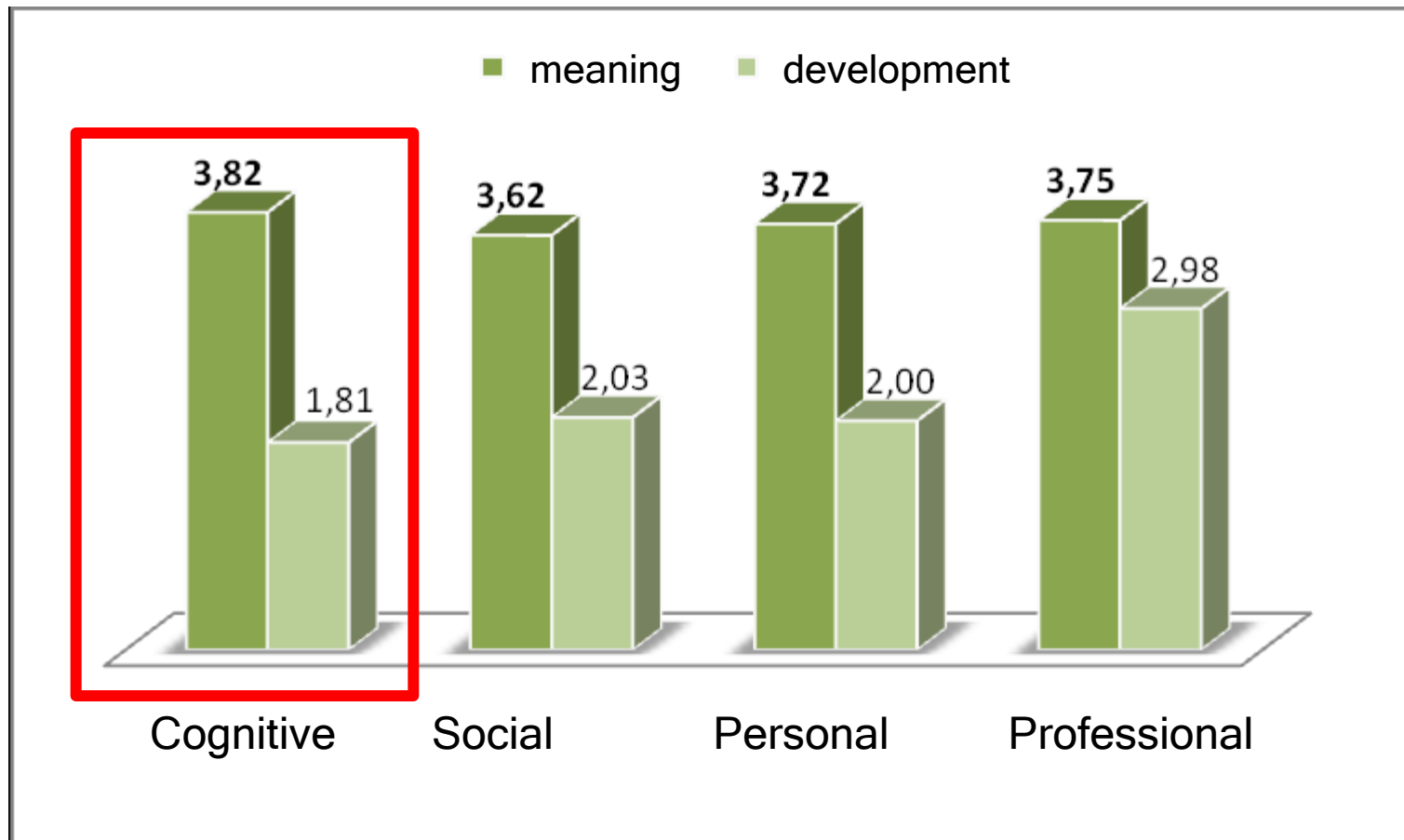
Professional dimensions, categorized in items



Virtues

- Virtues are seen as essential elements of the ability to study by all lecturers
- Selected virtues: honesty, tolerance, accountability, punctuality, courtesy, ability to question own behaviour
- Lecturers estimate that these virtues are decreasing, with the exception of tolerancy

Meaning and development of the four dimensions for ability to study forest sciences



Recommended measures by lecturers

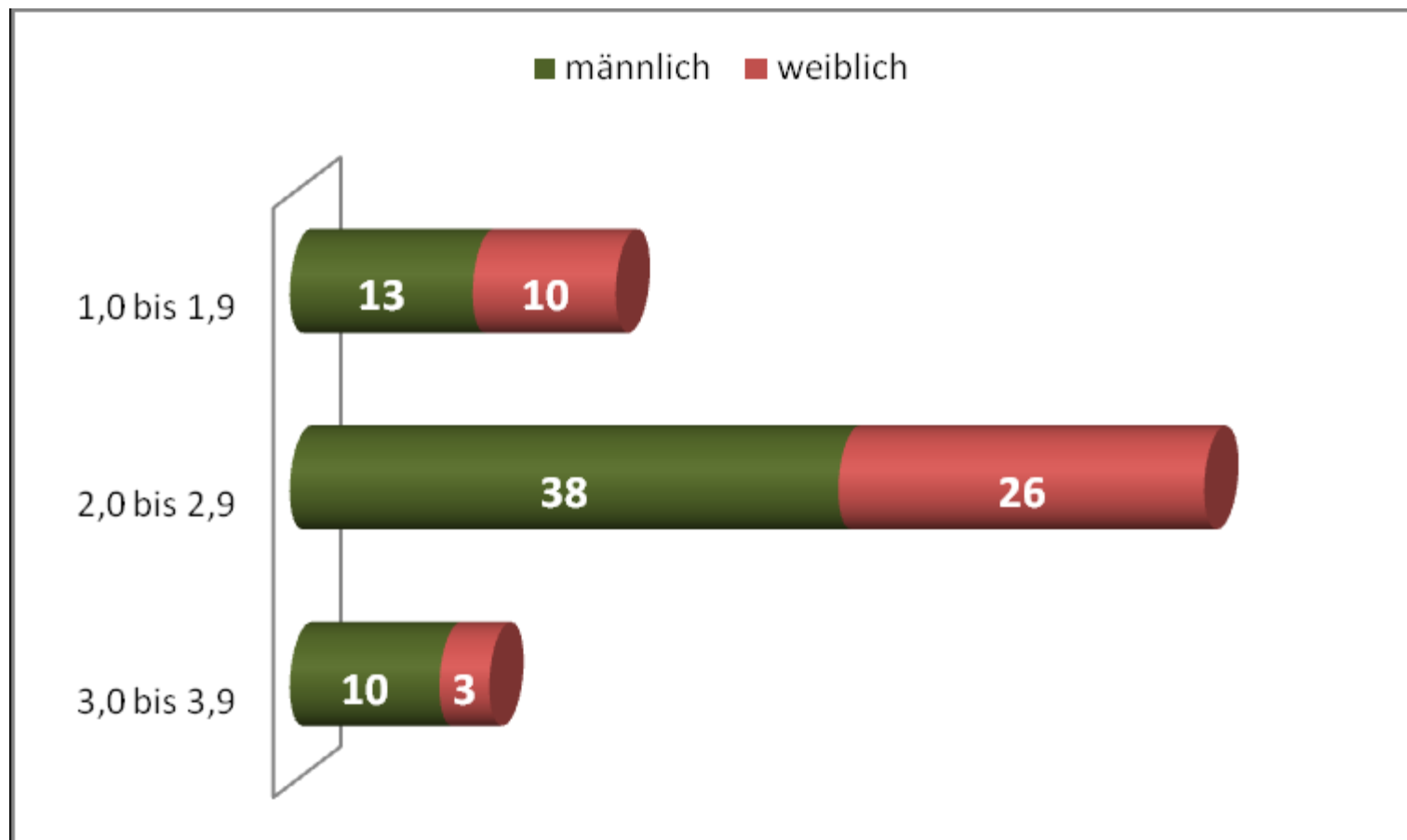
- Practical placement of several months (2)
 - Internal entrance examination (5)
 - Two-month course at the beginning for introducing into forest sciences (1)
 - Bridging courses as e-learning for forest sciences (5)
 - Bridging courses as lectures (2)

 - Most mentioned subjects: Mathematics, Chemistry, English, Biology, scientific working
- no clear tendency visible

Results: Students

- 88 out of 168 students of the first study year (52%) have returned their questionnaires
- Of these, 33 (38%) were female, 53 (60%) male
- 84 students of German nationality, 2 foreigners (Belgium, Russia)
- Age between 19 and 30 years, most of them between 20 and 23 years (78%)

Abitur grades by gender (%) (n= 86)



Side jobs?

- 28,4% of the students are employed in a side job
- 64,8% have no side job
- 6,8% did not answer the question
- Mean working time per week: 10,5 hours
- Two of the addressees mention that the side job is related to the study program

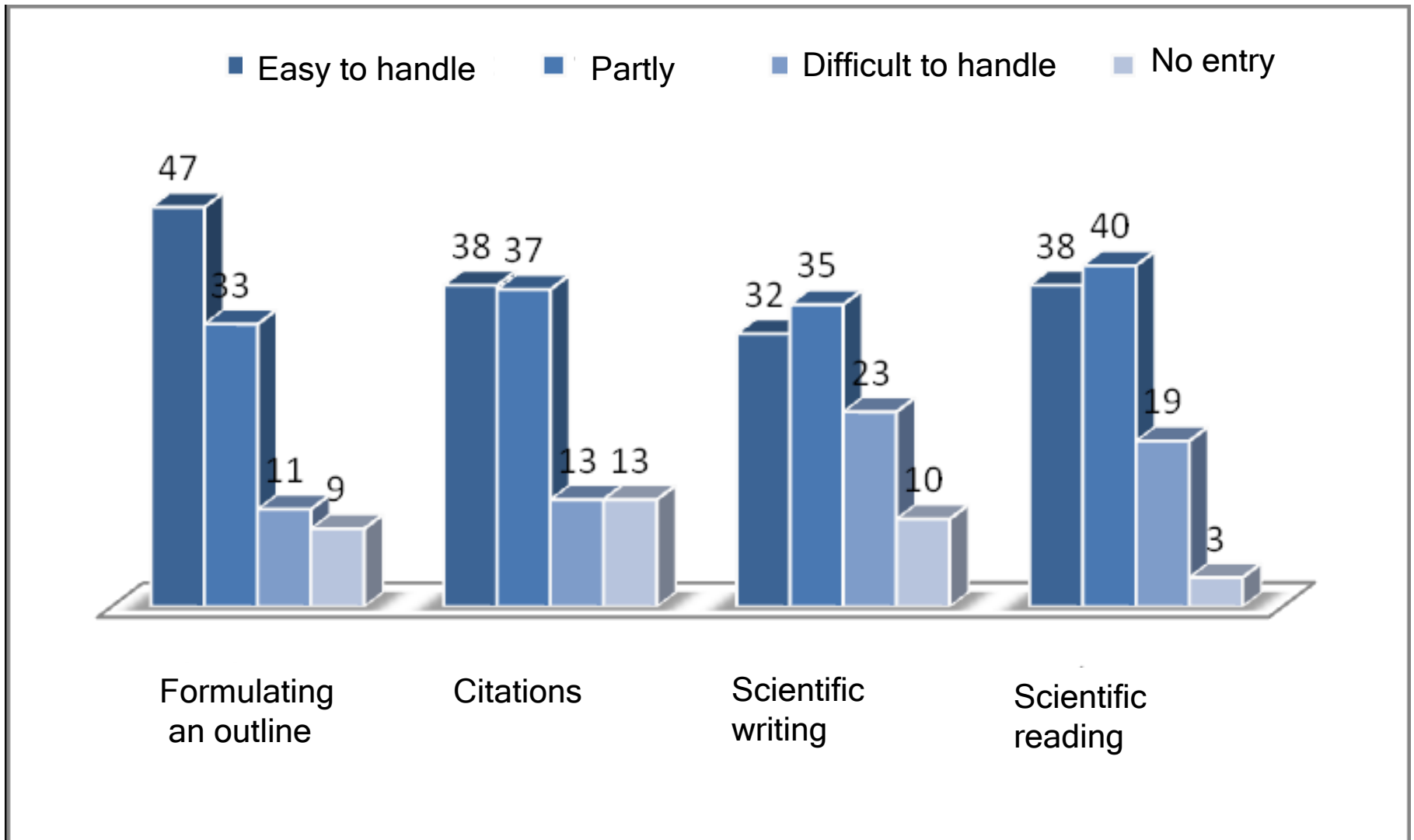
Professional competences

- School subjects:
 - knowledge in German, Mathematics and English has been acquired on basic and advanced course level
 - Physics and chemistry not well developed: 30-50% of the students have to rely on knowledge acquired up to the tenth grade
 - No clear statements about other subjects

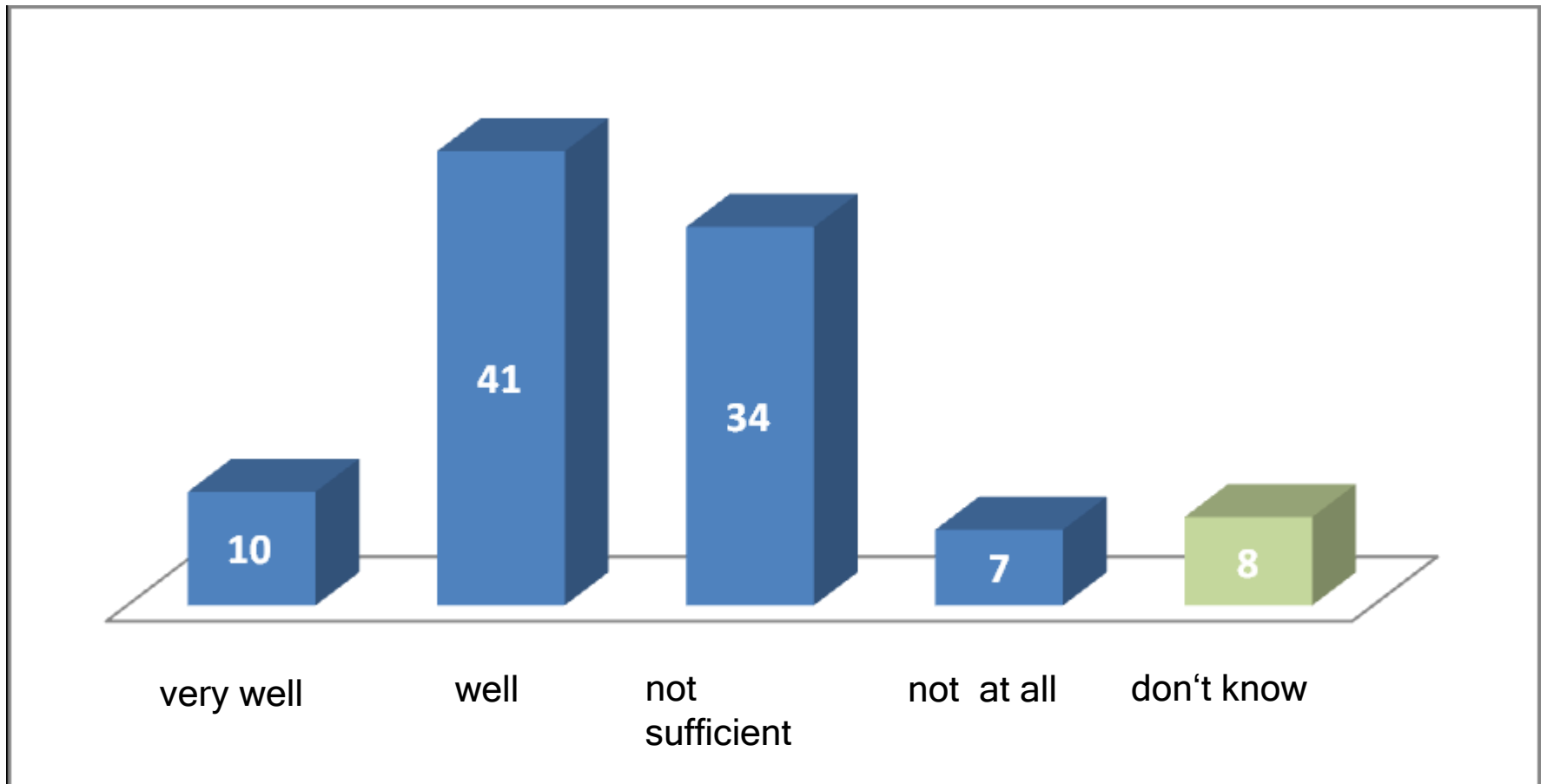
Competence in scientific working

- How do students come up with the task of producing a short scientific paper?
 - 30% well, very well
 - 37% unsure
 - 18% bad
 - 15% no answer

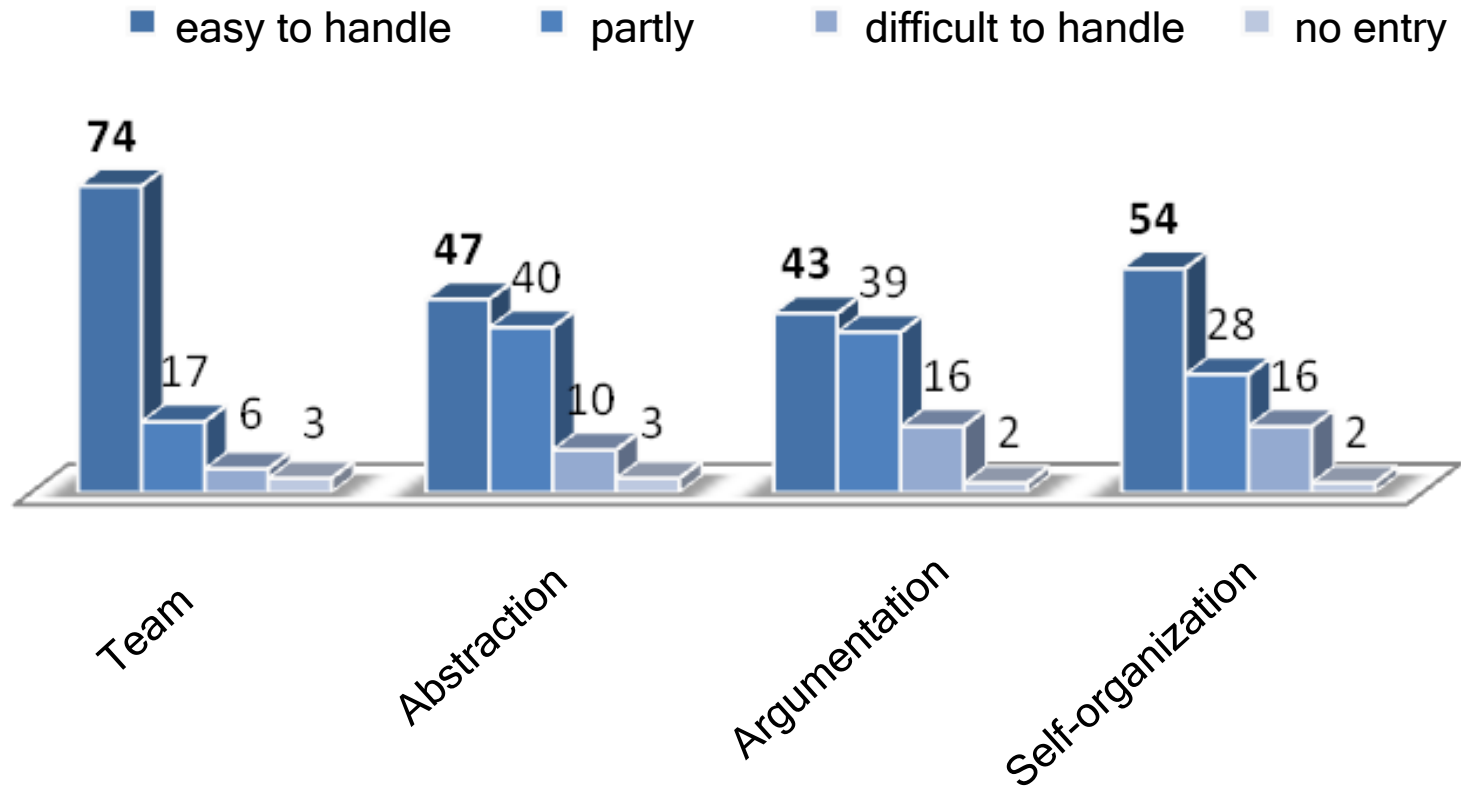
Competence in scientific working - details



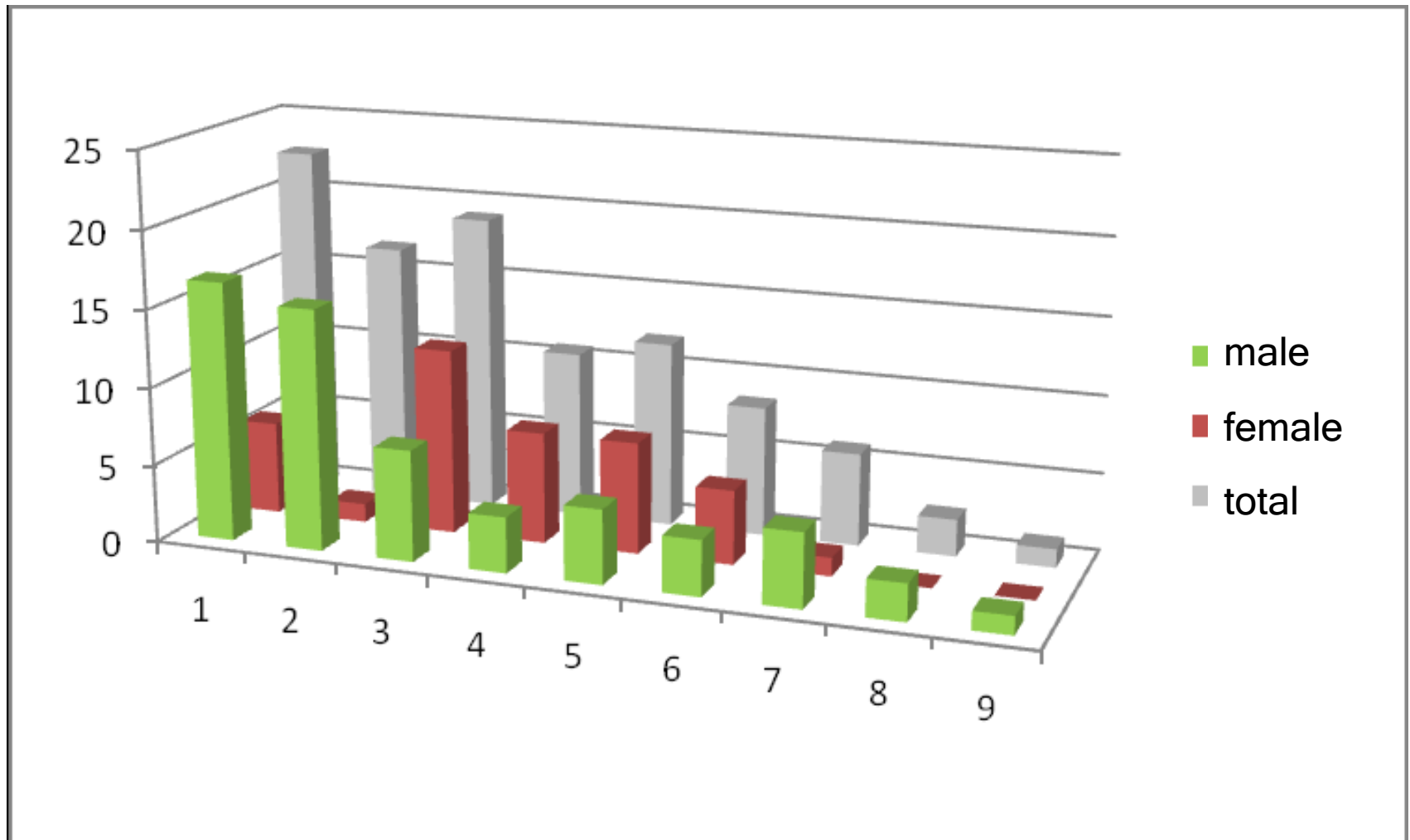
Preparation for the study program (% , n=88)



Generic competences (N = 88)



Stanine-Values (1-9), total value and gender (in %) (N= 84)



When did students make their decision to study forest sciences?

Time of decision	number	Percent
Before 10th grade	8	9
Begin of course system	3	4
During last year of school	17	19
Shortly after Abitur	20	23
Later	40	45
<i>Total</i>	<i>88</i>	<i>100</i>

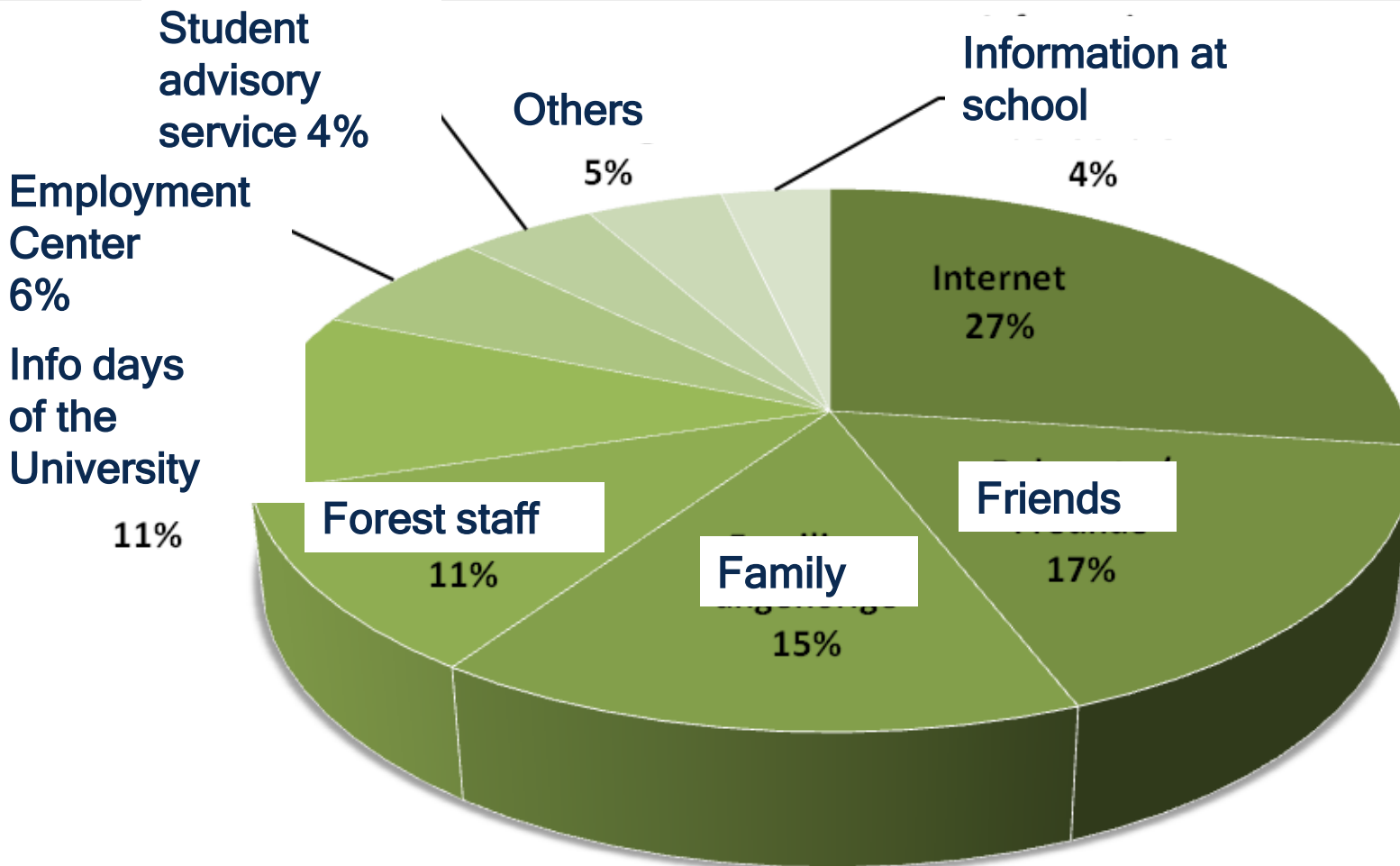
Aspects for the decision to study forest sciences

- **professional interest :** 90,3 %
- **developing personality:** 80,3 %
- **environmental awareness:** 66,0 %
- safety for finding/keeping a job: 50,6 %
- career-oriented deliberations: 38,0 %
- traditional aspects: 18,1 %

Occupations before the studies

- 34% of the students started at the University in the year after graduating from university entrance degree
- 66% have started their studies later
- Occupations in the meantime:
 - 24% army, voluntary service etc.
 - 11% practical placements (10 students, of these 5 students in forest activities)
 - 23% have terminated another study program without graduation (15 male, 4 female students)
 - 16% of the students have been employed before starting their studies
 - 10 students have started a professional education, of these three without certificate

Information sources about the study program



Pursued academic degree

No clear
ideas

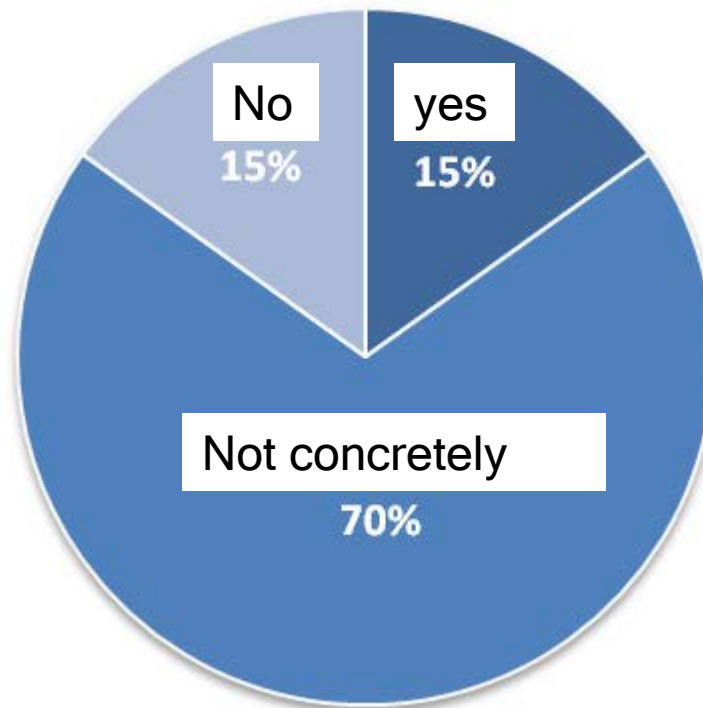
12%

Bachelor
22%

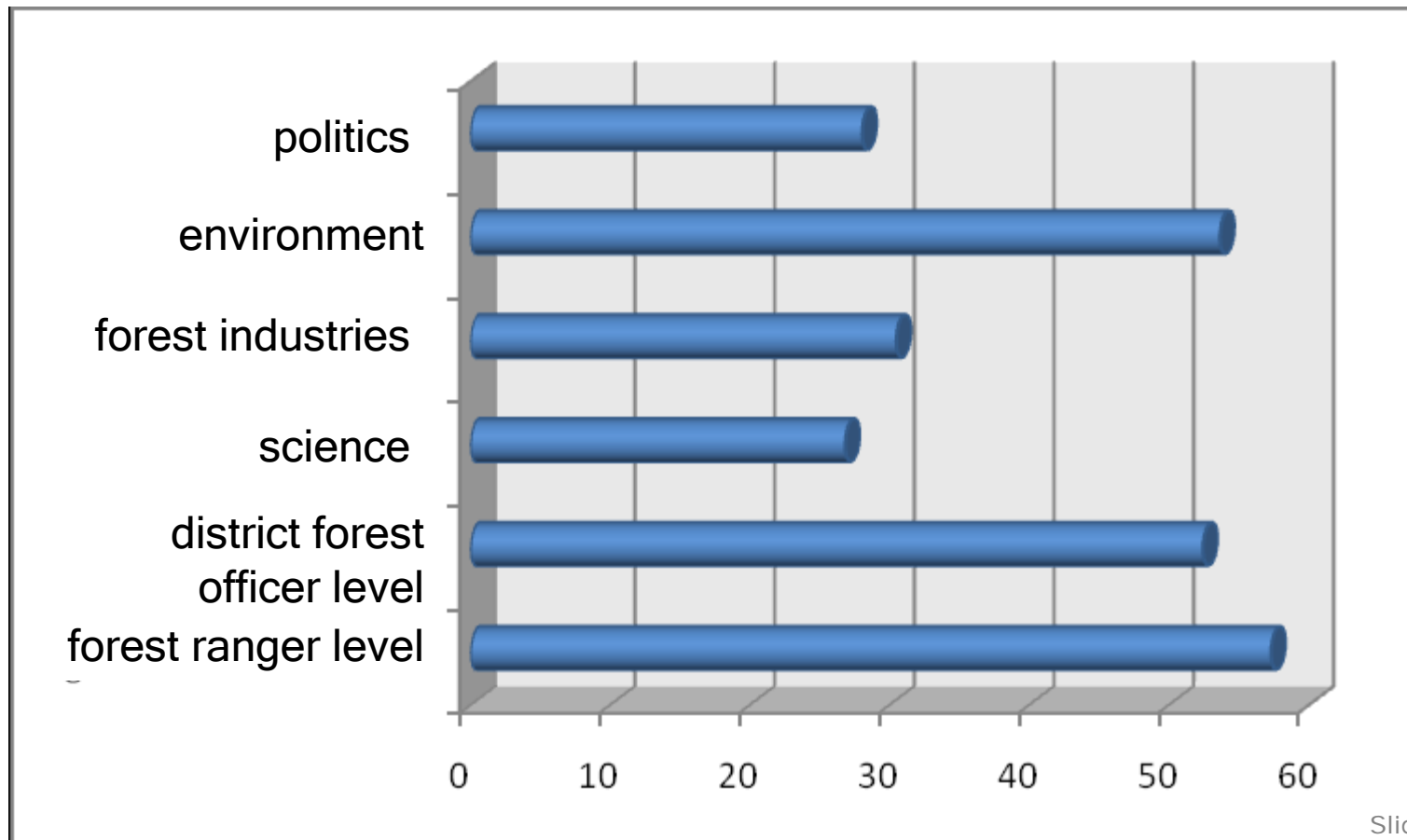
Promotion
16%

Master
50%

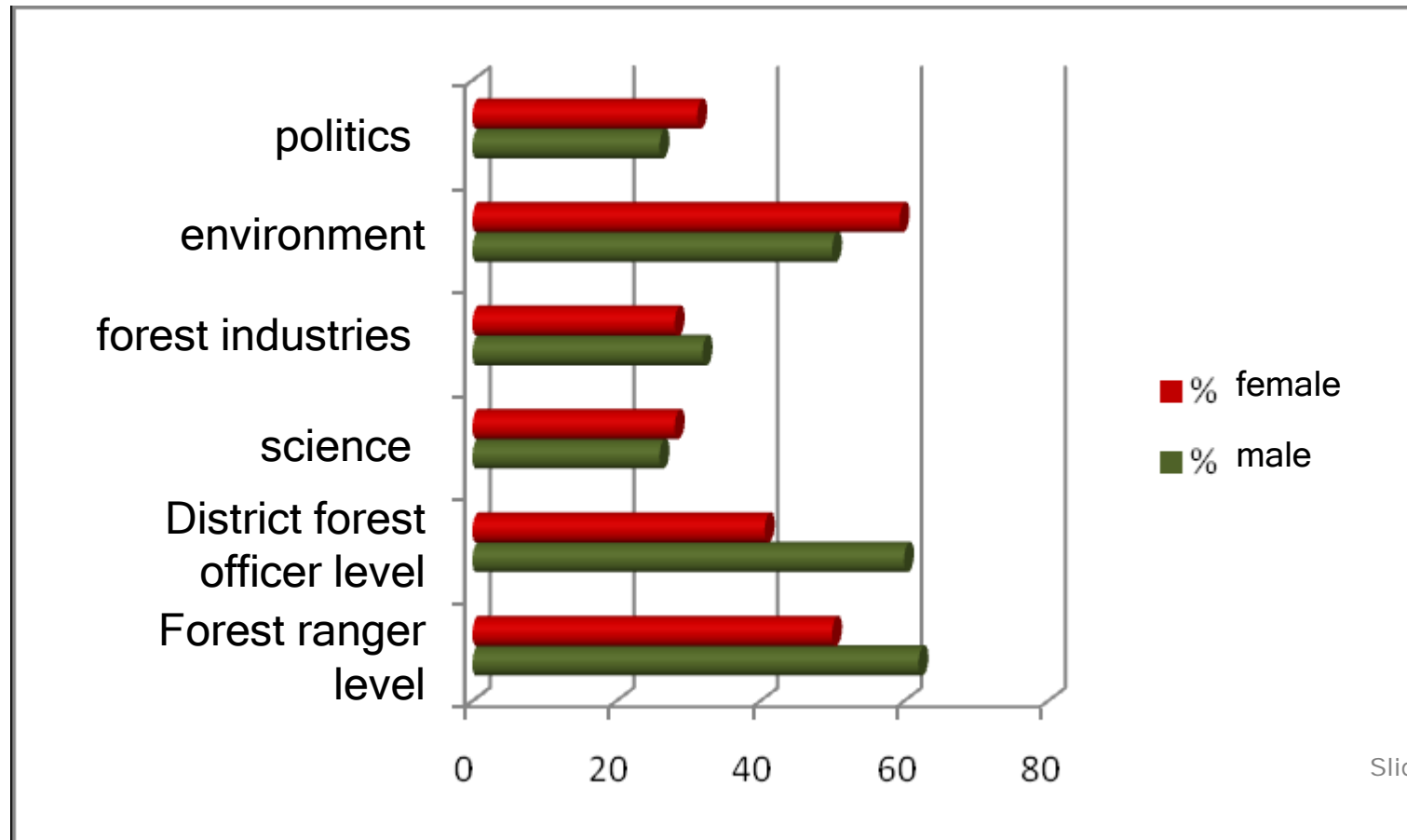
Idea about the future employment (N=88)



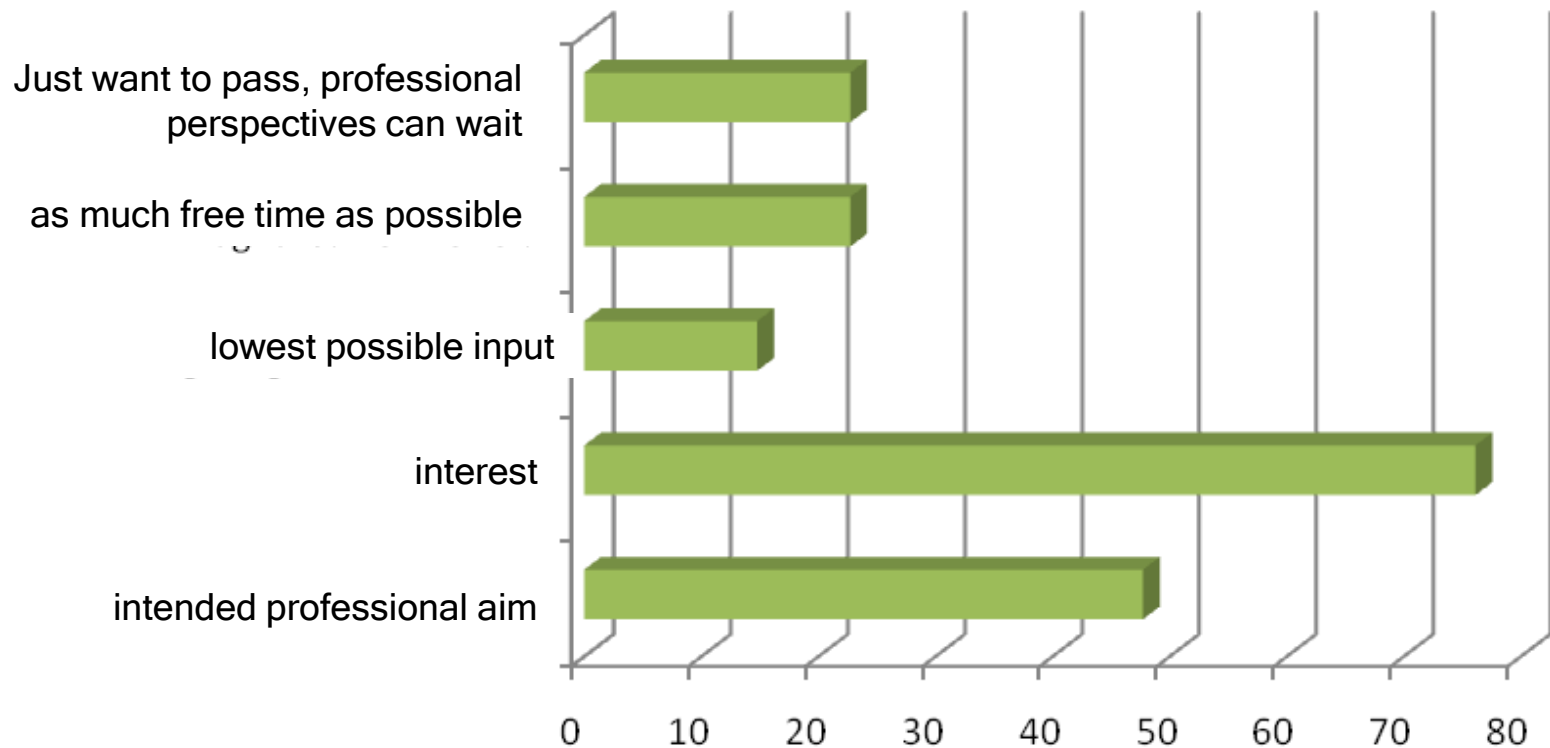
Pursued fields of profession



Pursued field of profession, differentiated by gender (in %) (N = 88)



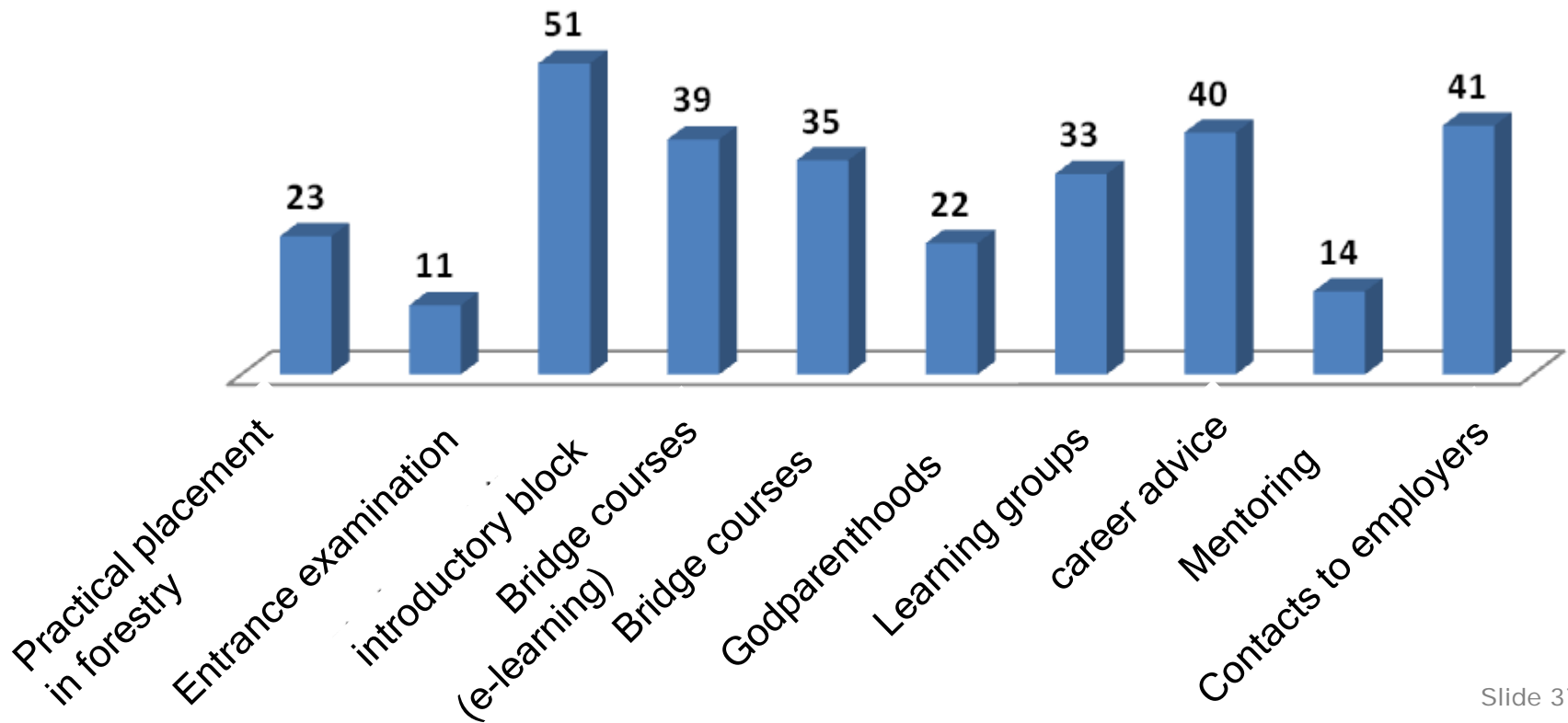
Motivations for selecting single modules



Summary about students

- Students are coming from different backgrounds
 - Individuality, social group
 - Federal structures of education in Germany
- Grades of the University entrance degree follow typical Gaussian distribution
- German, Englisch, Mathematics are available on basic course level; deficits are obvious in Chemistry, Biology, Physics
- About half of the students do not feel well prepared for studying after school
- Students propose different measures

Measures to improve the start of the studies – from students' point of view



5. Conclusions

Conclusions

- 41% of the students are not happy with the preparation for the study, lecturers complain as well
- generic competences: deficits in *enculturation*
- Many wishes, many ideas, but missing resources (staff, time, money)
- Good basis for discussion of the next generation Bachelor reform 20xx

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Thank you for your attention!

