The Impact of Student Numbers on the Quality of Teachers – The Situation in Vienna and a Possible Way Out

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Outline

• Introduction
• Impact of tight budgets
• Impact of student numbers
• Student numbers in Vienna
• How to increase the student numbers
• Conclusions

Introduction (1)

Quality of education influenced by
– Quality of curriculum
– Quality of the equipment
– Access to recent publications
– Quality and motivation of teachers

Improvement of curriculum may be useless if other influences are ignored

Introduction (2)

Focus here: Quality of Teachers in Vienna

Questions
– How does the budget influence the quality?
– How does the number of students influence the quality?
– What can be done to improve the situation?
Impact of Tight Budgets

Costs for teachers are
- Salary
- Training for teachers
- Excursions/field trips with students
- Library, equipment, etc.

Bad conditions mean
- Difficult to attract internationally renowned experts
- Possible effect on motivation of available teachers

Do Projects Help?

- **Positive effects**
  - Projects improve knowledge
  - Projects allow to hire additional staff

- **Negative effects**
  - Projects cause administrative costs
  - Project acquisition requires time of high quality teachers

Impact of Student Numbers

2 different aspects:
- Small communities have a lower influence than large ones
  (e.g., surveying vs. computer science)
- From which group do possible teachers come from? Graduates!
  Small number of graduates ➔ small group to select from

We must keep the student numbers high!

Student Numbers in Vienna

How to assess the number of students?
- Beginners?

How to eliminate ERASMUS-students?
Important Questions

• How many graduates will be available?

• How many graduates are necessary?

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Correlation 82%

After elimination of outlier:
Correlation 94%

Necessary Number of Graduates at Universities?

Number of researchers at
• Vienna University of Technology 74
• Graz University of Technology 30
• University of Applied Life Sciences 11
• Innsbruck University 6

120

3 graduates per year are necessary
Problem 1

10 - 15 graduates available
1/4 required for university staff

plus:
- Industry needs graduates
- Public administration needs graduates

Currently: All positions can be filled (1 – 2 applicants per position)
But: Not much selection possible  quality will drop in the long run

Problem 2

Organizational decisions within the university based on student numbers
Low relative numbers of students in Vienna
(1,5% in 1990 to 0,9% in 2003, positive trend since 2003)
Graduates are easy to count!

Danger: Closing curriculum (as in Innsbruck, Delft, Berlin)

How to increase Student Numbers?

- Children of surveyors – already here
- Contact with surveying (summer work, presentations at schools, promotion material) – may be attracted
- Promote other interests? Cartography, geography, geoinformation, geophysics, etc. Attracts different students!
Conclusions

• We need more students to keep the quality of education

• We should aim at students with different interests

• We need to advertise additional fields of work

Thank You for Your Attention

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