



JENS BENNEDSEN PROFESSOR, HEAD OF CDIO DEVELOPMENT LAB





ME

- > Not an engineer
- > Teaching != learning
- > You learn something iff
- 1. You work
- 2. On the edge of your competences
- 3. With something that you are motivated by

The ultima formula, Steen Larsen





WHAT IS A HIGH DROP-OUT RATE?

- 1.0%
- 2. 1-5%
- 3. 6-10%
- 4. 11-15%
- 5. 16-20%
- 6. 21-25%
- 7. 26-30%
- 8.31-40%
- 9. 41-50%
- 10.Above 50%







WHO HAS THE **MAIN** RESPONSIBILITY FOR **PREVENTING** DROP-OUT?

- The student
 The teacher(s)
 The institution
 The students family
- 5. The government



WHAT IS MEANT BY "DROP-OUT"?

> A student who

- 1. Never shows up
- 2. Shows up in the first weeks and leaves the institution
- 3. A students who is at the institution after a month but leaves without a degree
- 4. A student who studies in one year, leaves the institution without a degree
- 5. A student who leaves the institution but finishes with another degree
- 6. Something else
- > Two types of drop-out
 - > Qualified drop-out (reelection of study programme)
 - > Leaving without a new educational goal

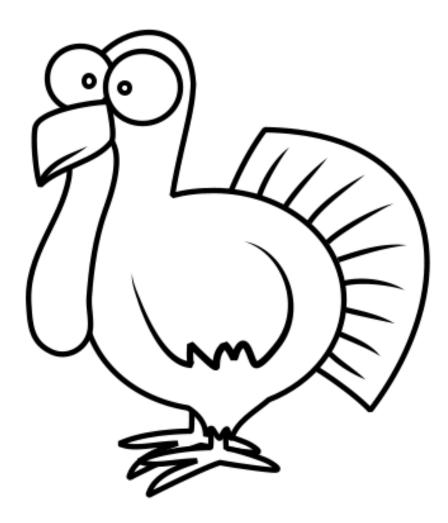




OUTLINE

> Background

> Initiativs





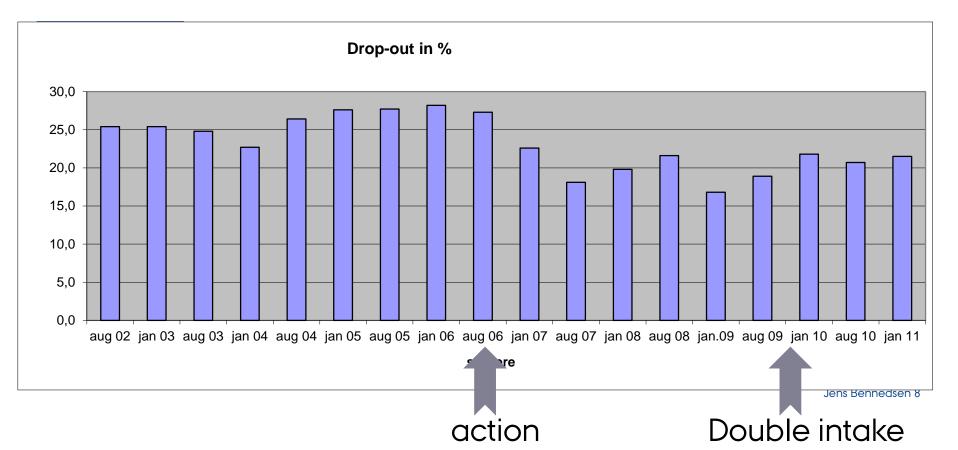
BACKGROUND

- Professional bachelor
- > Danish system





OUR DROP-OUT RATE





THE DANISH GOVERNMENT'S PLATFORM: THE 2020 PLAN

> Education

- > 95 per cent to complete an upper-secondary education
- > 60 per cent to complete a post-secondary bachelors degree
- > 25 per cent to complete a post-secondary masters degree
- > 2.5 per cent to complete a doctoral degree
- > Better post-secondary degree programmes
- > Decreased time-to-degree
- Coherent structure and smoother transitions between levels in the educational system



POLITICAL INCENTIVES

- Money after the amount of passed ECTS
- > Extra money when finishing
- Extra points for students who start shortly after their high school exam
- > Extended focus on research $\ensuremath{\textcircled{\ensuremath{\Theta}}}$





QUESTION - TPS

- > Use 30 sec and answer within your self: "What initiatives have my INSTITUTION done to lower the drop-out rate?
- > Share your answer with your neighbor





INSTITUTION INITIATIVES

- > Improve the fac/stud ratio
- > Mentoring system
- > Student coordinator
- > QA
- > Project work for beginners
- > Counseling program

- > Pre study courses in math + additional courses in 1. year
- > Entry test



DATA

> Or background for my talk





FINDING 1- CARE

- Teachers care about students
 - the most important action is that we view the students as persons – not student-numbers
- Management: motivate and support lecturers in developing their empathy for students





ASE INITIATIVES – BEFORE STARTING

> High school students visit

> Math brush-up





ASE INITIATIVES – WHEN STUDYING

- Formal conversations between the student and a student counselor
- Close interaction with students who have a high risk of drop-out
- > Study technique course
- > Exam training
- > Student mentoring scheme
- > Networks of "minority students"





CONSIDERED INITIATIVES

- > Prediction of success
- > Extra semester in the summer





DOES DROP-OUT IN THE ENGINEERING SCIENCES CONTRIBUTE TO MAINTAINING THE HIGH QUALITY OF AN ENGINEERING EDUCATION?

- 1. No
- 2. A little
- 3. Some
- 4. A lot
- 5. The most important factor
- 6. Do not know





WHAT IS AN ACCEPTABLE DROP-OUT RATE?

- 1.0%
- 2. 1-5%
- 3. 6-10%
- 4. 11-15%
- 5. 16-20%
- 6. 21-25%
- 7. 26-30%
- 8.31-40%
- 9. 41-50%
- 10.Above 50%



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WHAT IS A HIGH DROP-OUT RATE (2)?

- 1.0%
- 2. 1-5%
- 3. 6-10%
- 4. 11-15%
- 5. 16-20%
- 6. 21-25%
- 7. 26-30%
- 8.31-40%
- 9. 41-50%
- 10.Above 50%





WHO HAS THE MAIN RESPONSIBILITY FOR PREVENTING DROP-OUT (2)?

The student
 The teacher(s)
 The institution
 The students family
 The government





DOES DROP-OUT IN THE ENGINEERING SCIENCES CONTRIBUTE TO MAINTAINING THE HIGH QUALITY OF AN ENGINEERING EDUCATION (2)?

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- 6. Do not know



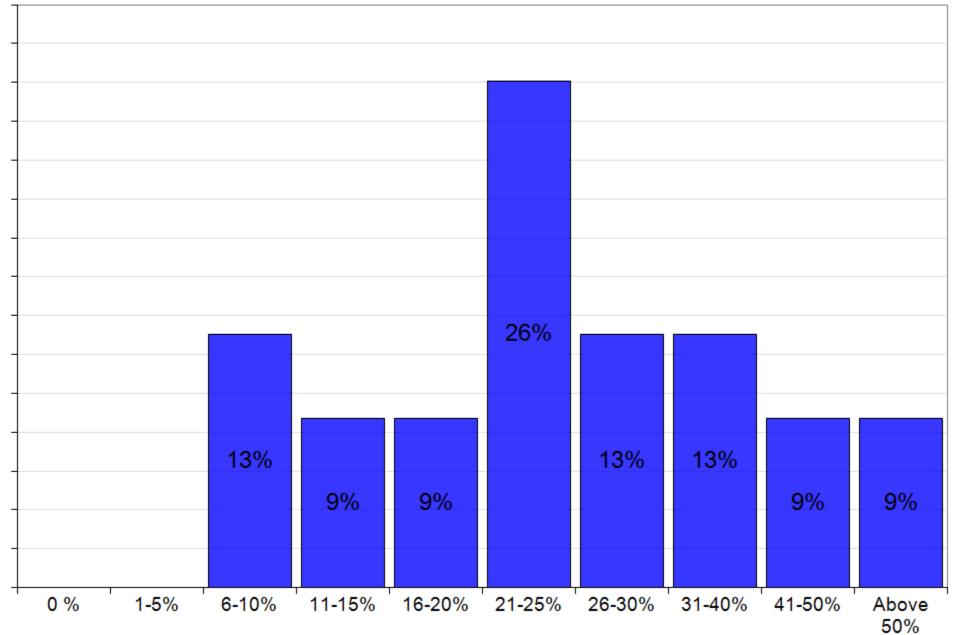


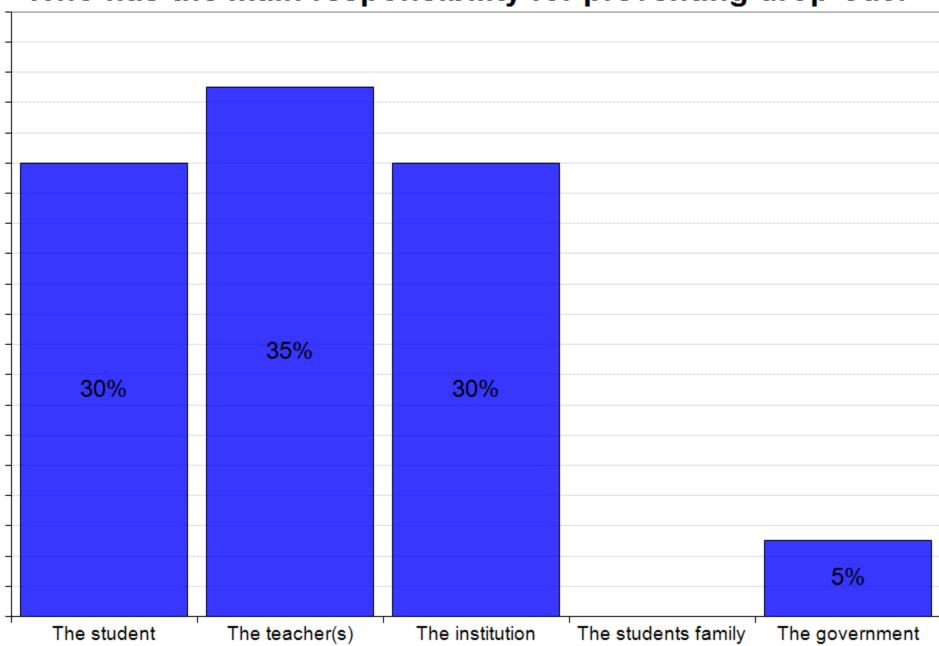
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What is a high DROP-OUT rate?





Who has the main responsibility for preventing drop-out?

What is meant by "drop-out"?

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Does drop-out in the engineering sciences contribute to maintaining the high quality of an engineering education?

