CASE 1

CONTEXT

Higher Education System in Flanders?

BAMA structure

5 universities & more than 20 university colleges

two semester system

admission requirements: Flemish secondary diploma

KU LEUVEN

16 faculties

founded 1425

more than 55 000 students

Faculty of Engineering Science

more than 5 000 students

mathematics in secondary

academic bachelor

500 first year students

Tutorial Services

service on top of education system prof-assistant

supporting only first year students
- courses
- their study career
- exams
- non-study related topics

Tutorial Services
For supporting first year students
- courses
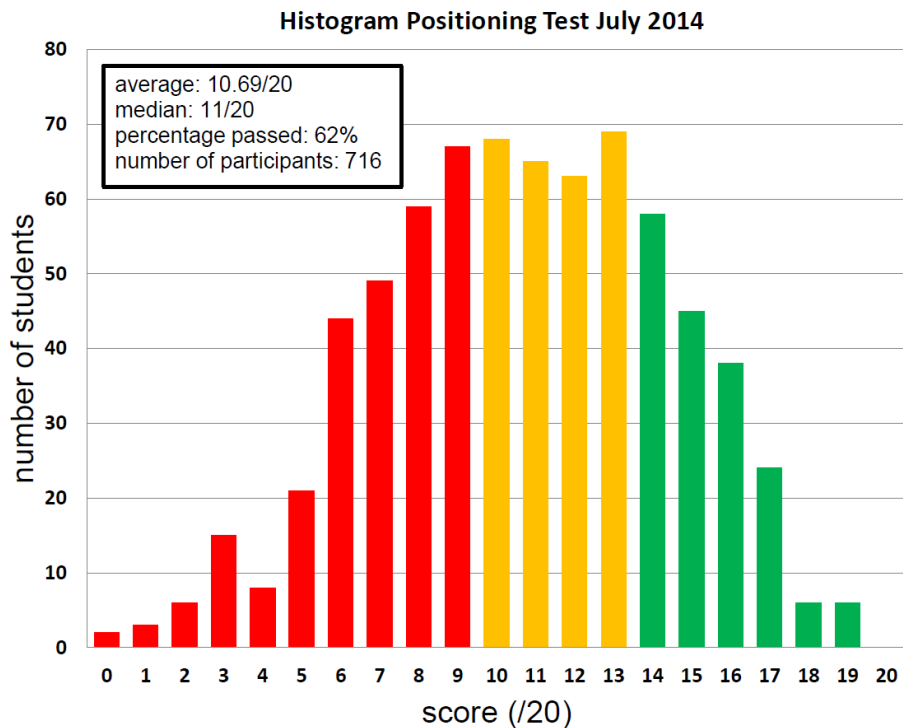- study career
- exams
- non-study related topics
- feedback

Available Data

Engineering Positioning Test

Non-mandatory and non-binding test before the start of the academic year. Focusses on math (abstract mathematical bachelor programs and best predictor for later study success).

Tries to inform student on their position with respect to other participants and with respect to expected mathematical skills for engineering science bachelor.

Result on positioning test

Histogram Positioning Test July 2014

average: 10.69/20
median: 11/20
percentage passed: 62%
number of participants: 716

Examination results

- Examination results per student
- January/June(/September)
- Over 5 years of data
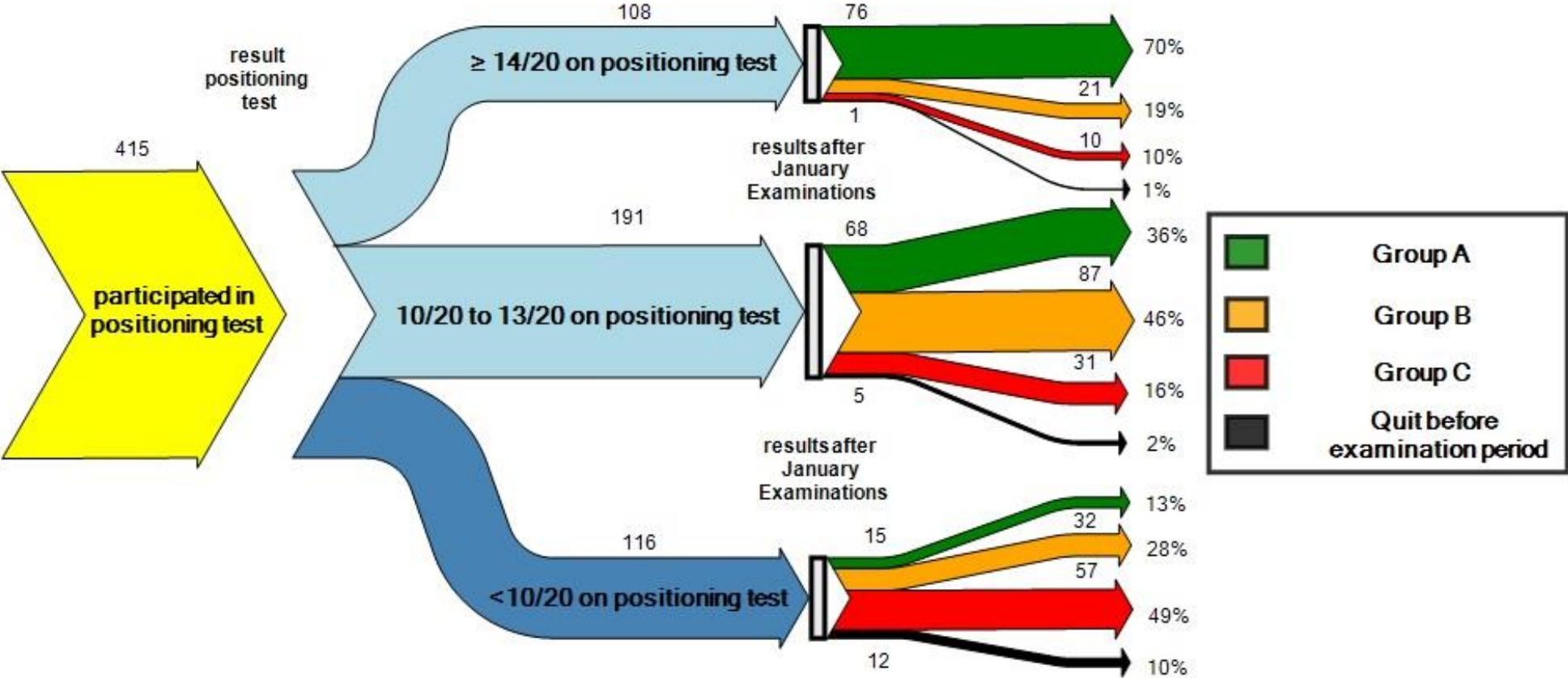- Records per student (Allows for finding trends through bachelor years)

How we present the data to students

Positioning test and subscription

Students Bachelor Ir KU Leuven - generation students 2014-2015
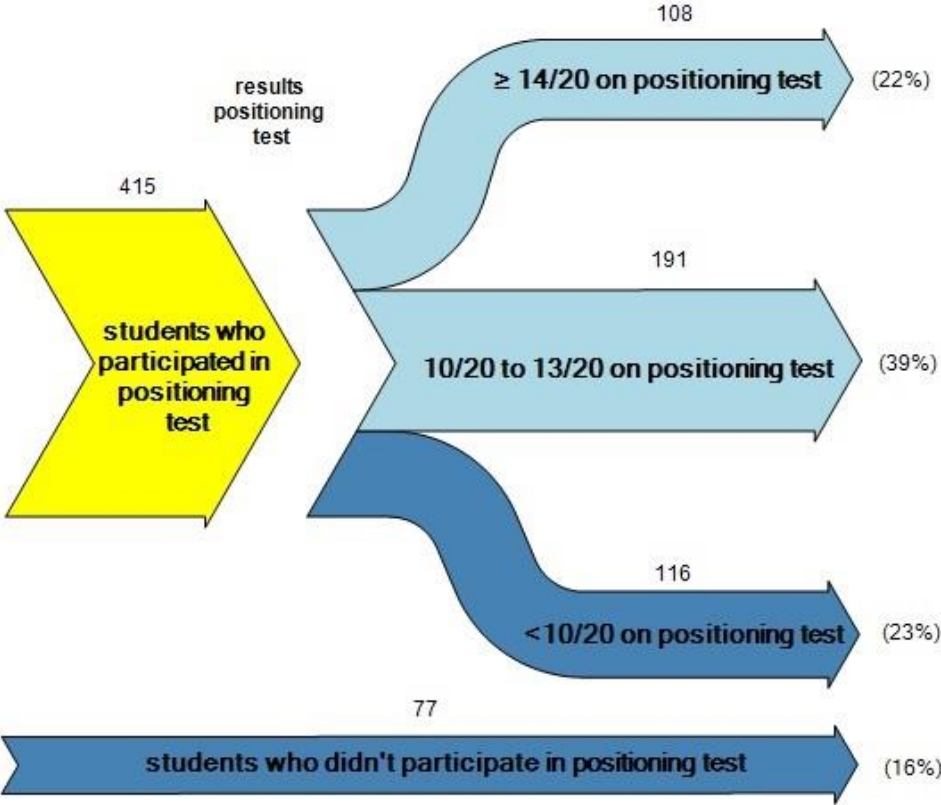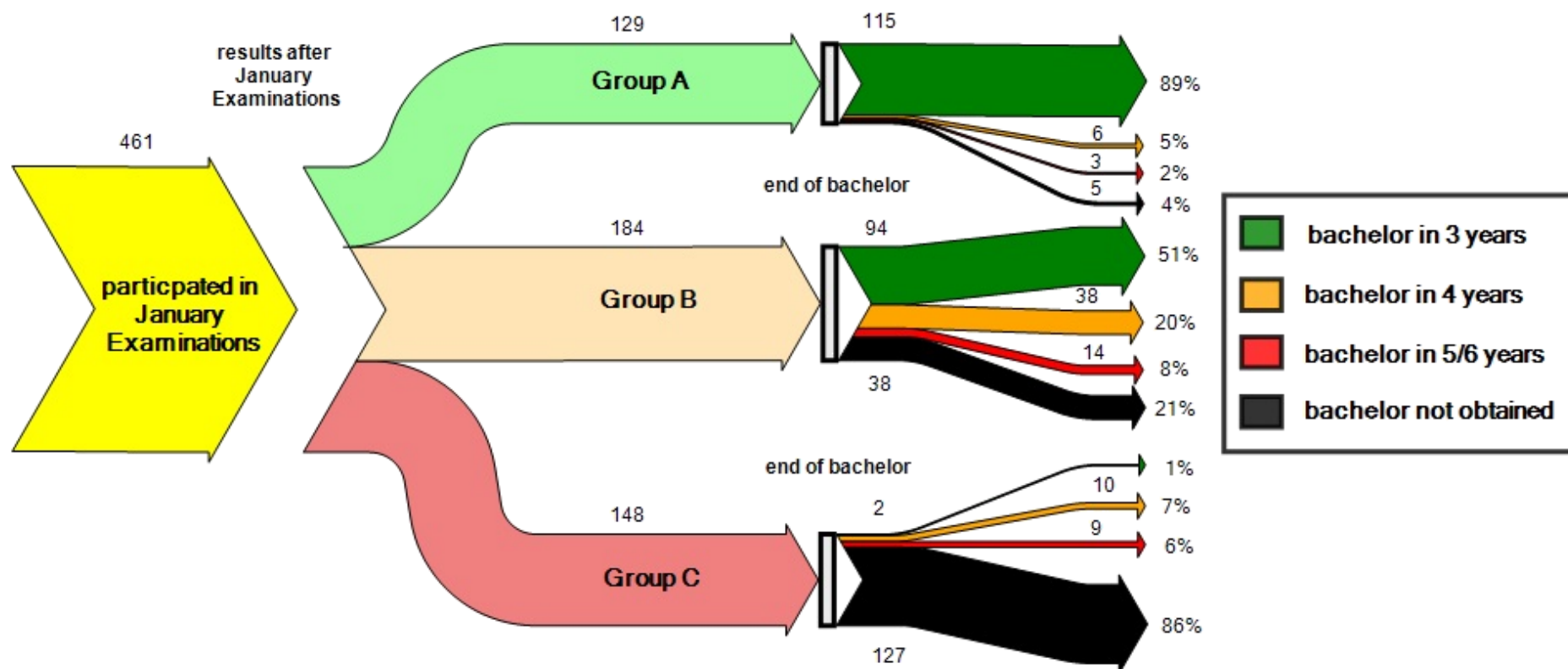
Students Bachelor Ir KU Leuven - generation students 2014-2015

Students Bachelor Ir KU Leuven - generation students 2009-2010

results after January Examinations

461 — particpated in January Examinations

129 — Group A — 115 — 89% bachelor in 3 years
6 — 5%
3 — 2%
5 — 4%

end of bachelor

184 — Group B — 94 — 51%
38 — 20%
14 — 8%
38 — 21%

end of bachelor

148 — Group C — 2 — 1%
10 — 7%
9 — 6%
127 — 86%

Legend:
- bachelor in 3 years
- bachelor in 4 years
- bachelor in 5/6 years
- bachelor not obtained

Assignment

Currently, students access these diagrams online for self-reflection. This can trigger a student to make an appointment with a student councillor. Student councillors can use the same diagrams to complement their advice and to position the student. This meeting is a discussion between the counsellor and the student: the student explains their situation, the counsellor attempts to see if the student understands what went wrong, and then uses the data available (the diagrams, and the student personal results) to provide feedback and study guidance, but most importantly help the student make the proper decisions regarding their student career (change major, take on less ECTS…). The goal of this assignment is to explore ways of supporting these type of meetings between first year students and counsellors through data visualisation of learning analytics data (i.e. learning dashboards). An important note: try to look at the issue from both student and counsellor perspective.

Here are a couple of questions to help you get started:

- What setup do you imagine would work well in such a meeting (screens, devices)?
- Taking into account both personas, in what other ways can the information we have support a meeting between student and counsellor.
  o How should the data be visualised?
  o How should student and counsellor interact with such visualisation? (does someone "drive" the application, while the other spectates?)
  o Should the approach be personalised for the student, and if so, how?