

The logo consists of four white circles of varying sizes arranged in a cluster on a solid green background. The largest circle is at the top right and contains the text 'ITK 2014' and 'research workshop'. A medium-sized circle is positioned below and to the left of the largest one, containing the date 'Apr 9 2014'. Two smaller circles are located at the bottom left of the cluster.

**ITK
2014**

*research
workshop*

Apr 9
2014

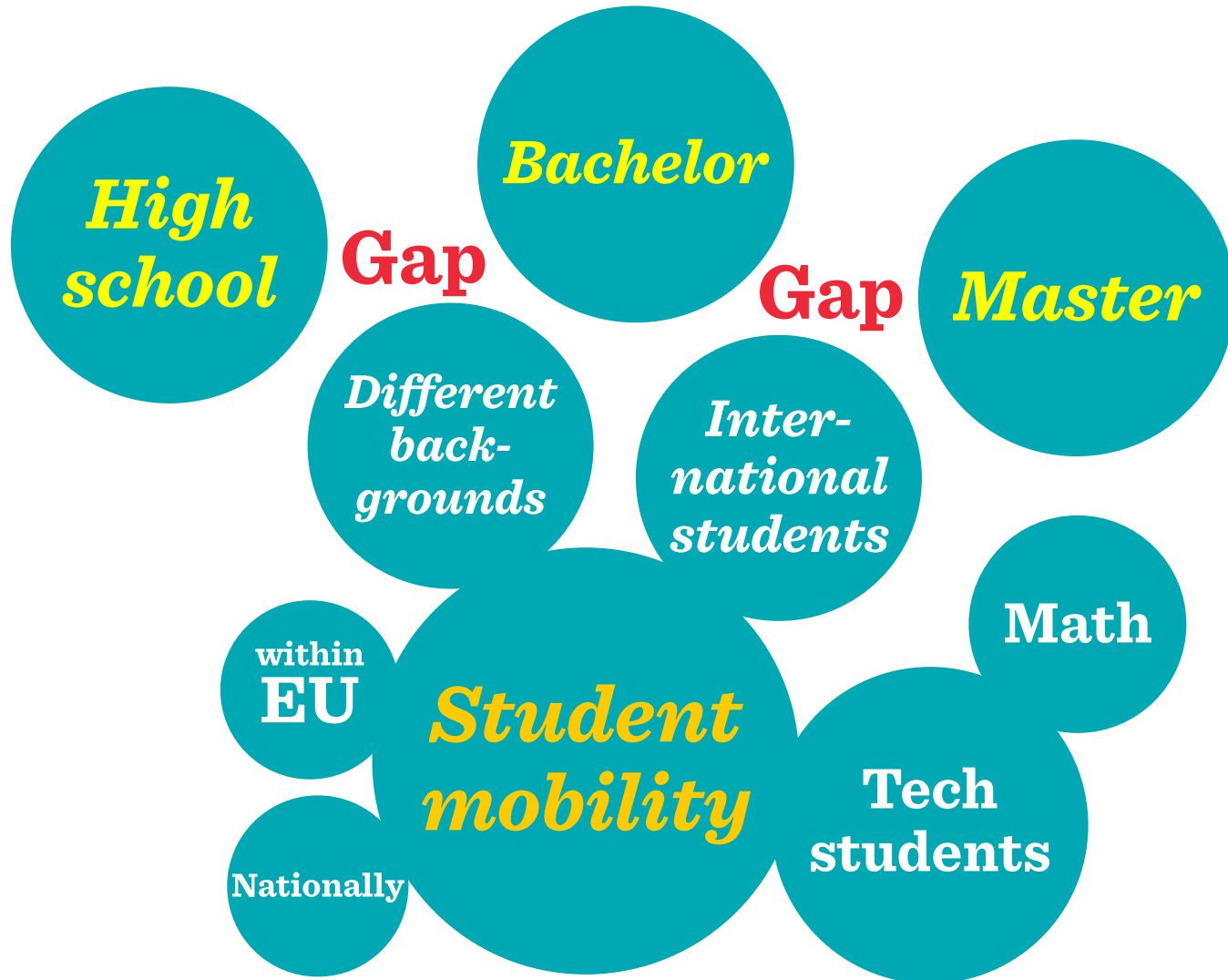
Experiences on building bridges and minding the gaps

First year chemistry students rehearsing high school math with two online learning environments

Antti Rasila & Hannu Tiitu

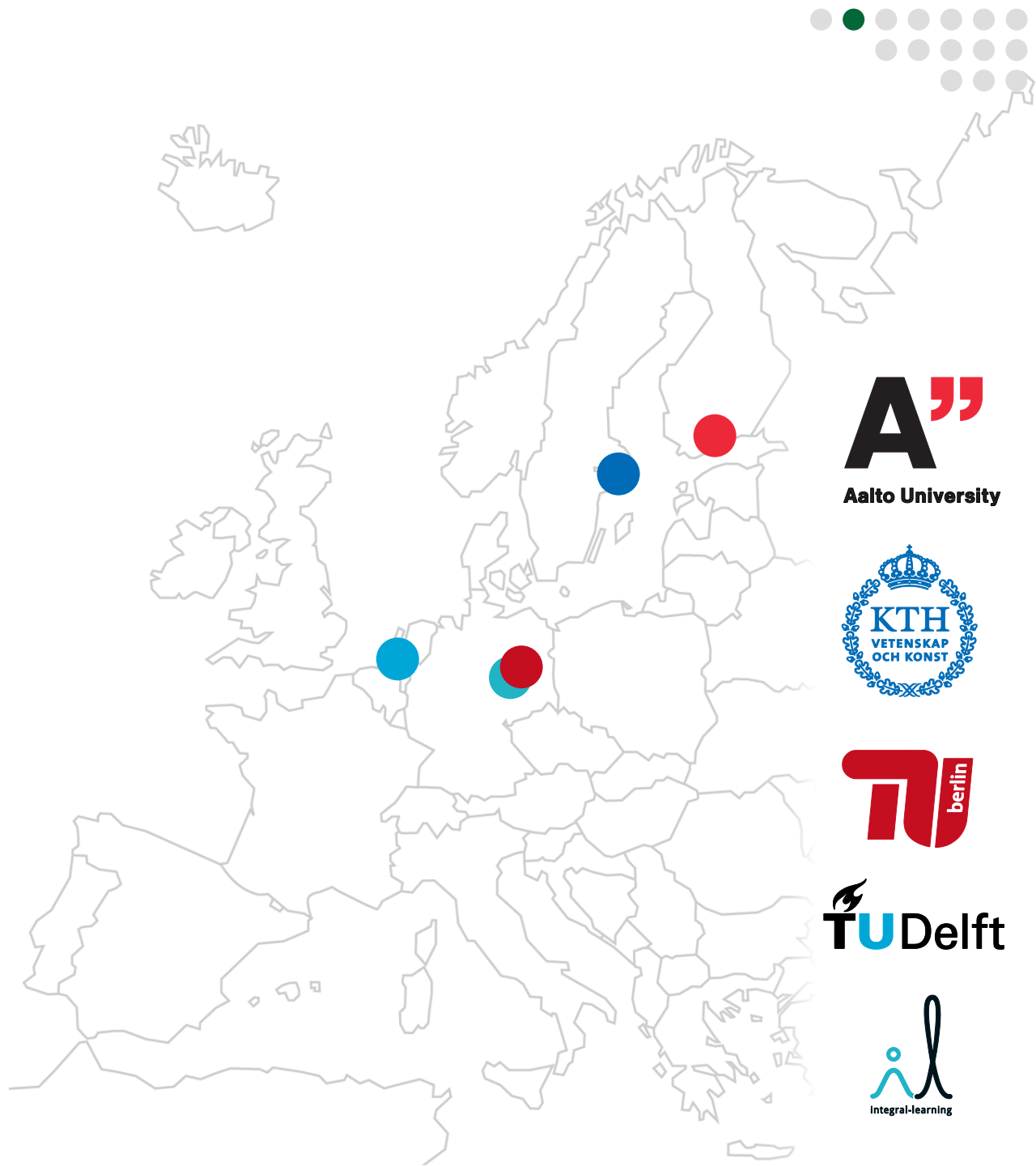


Student mobility, bridging gaps





**Support
Successful
Student
Mobility *with*
MUMIE**





S3M2 @ Aalto



Kertaa lukion matematiikkaa, osallistu

Matikkajumppaan!

Lue lisää netistä ja tule jumpan neuvontaan

tiistaisin ja torstaisin klo 12-13

kemian tekniikan talon atk-luokassa 2 (alkaen to 12.9.)

wiki.aalto.fi/display/matikkajumppa

facebook.com/matikkajumppa

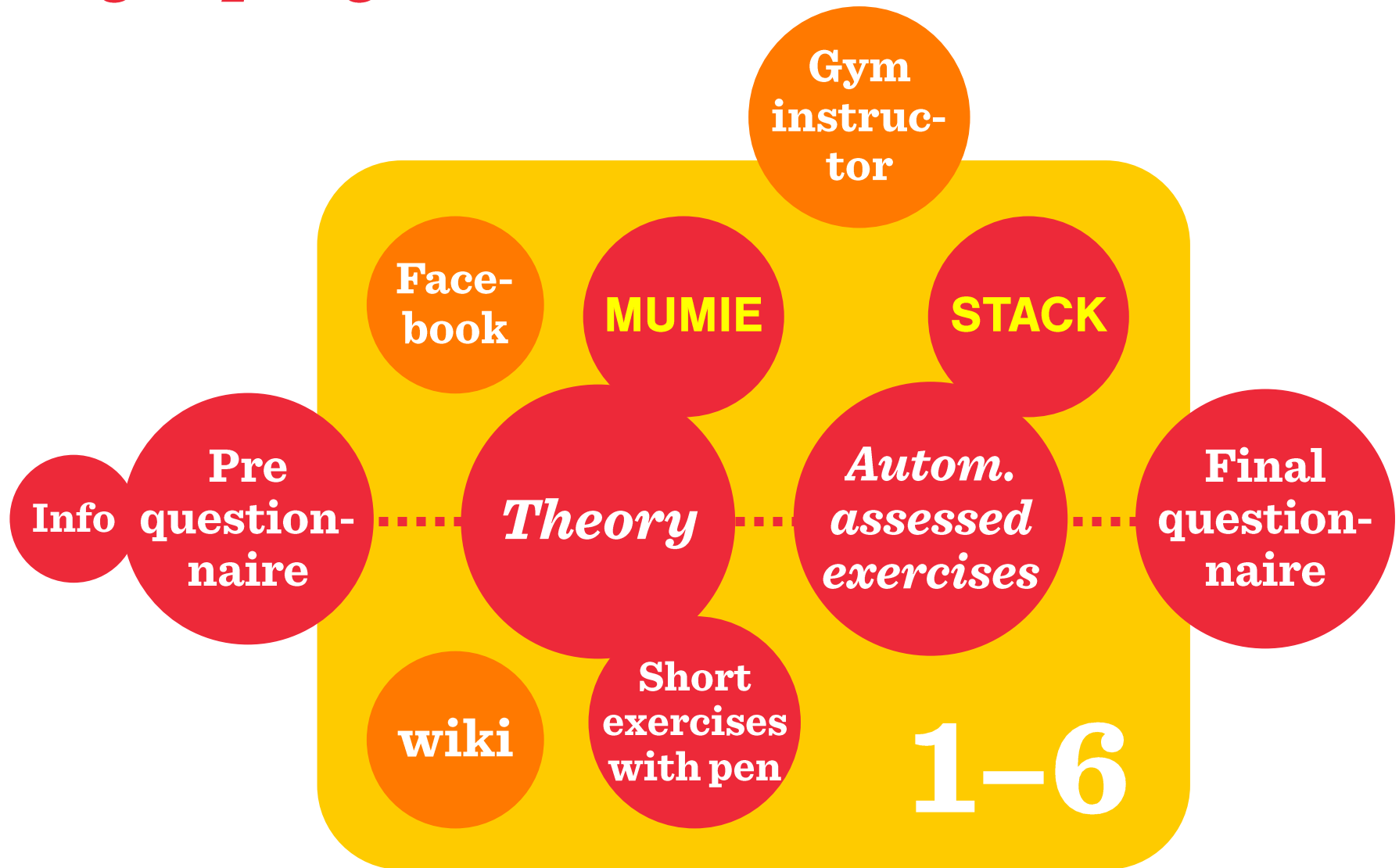
Matematiikan ja systeemianalyysin laitos



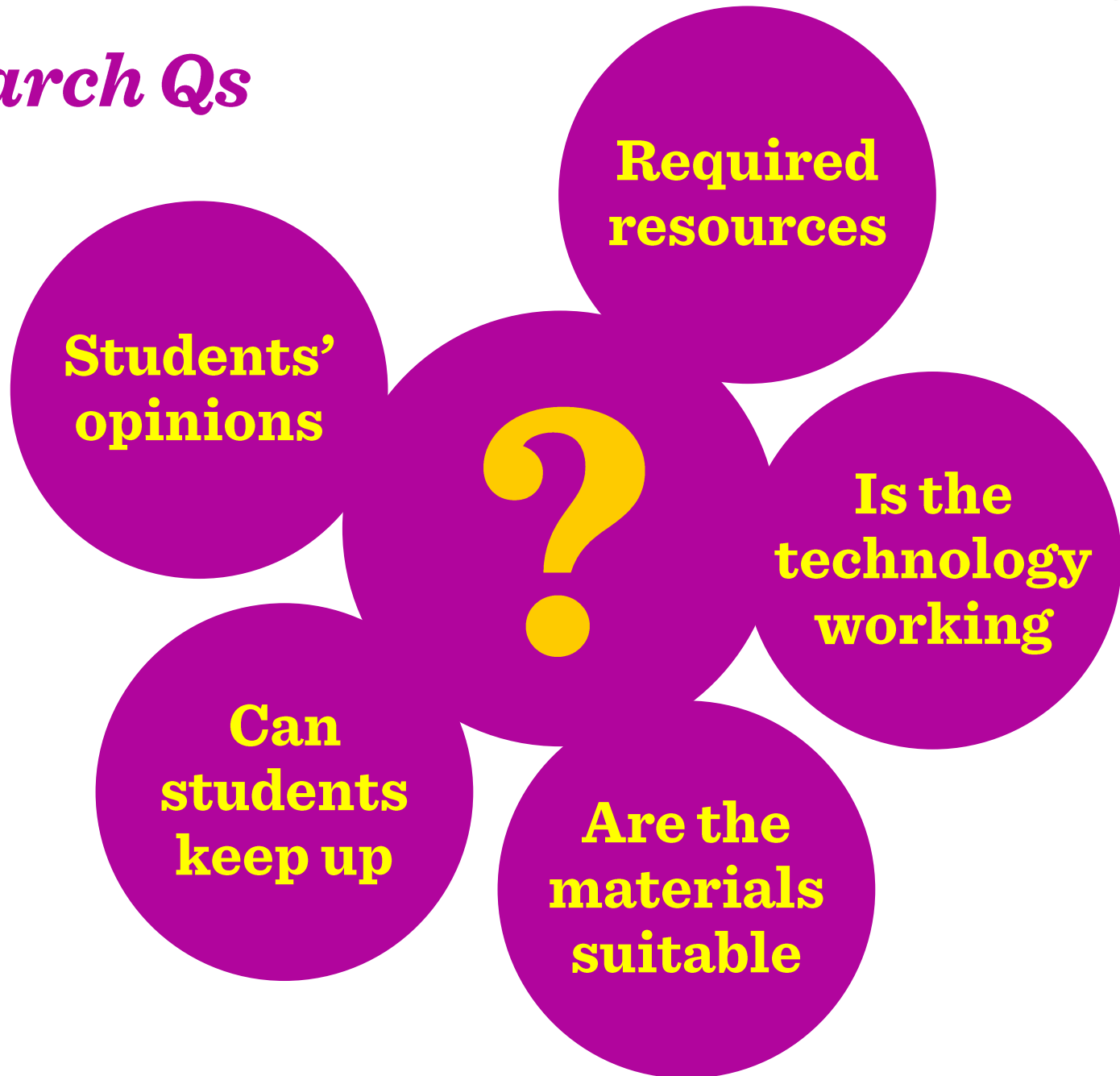
Gym weeks



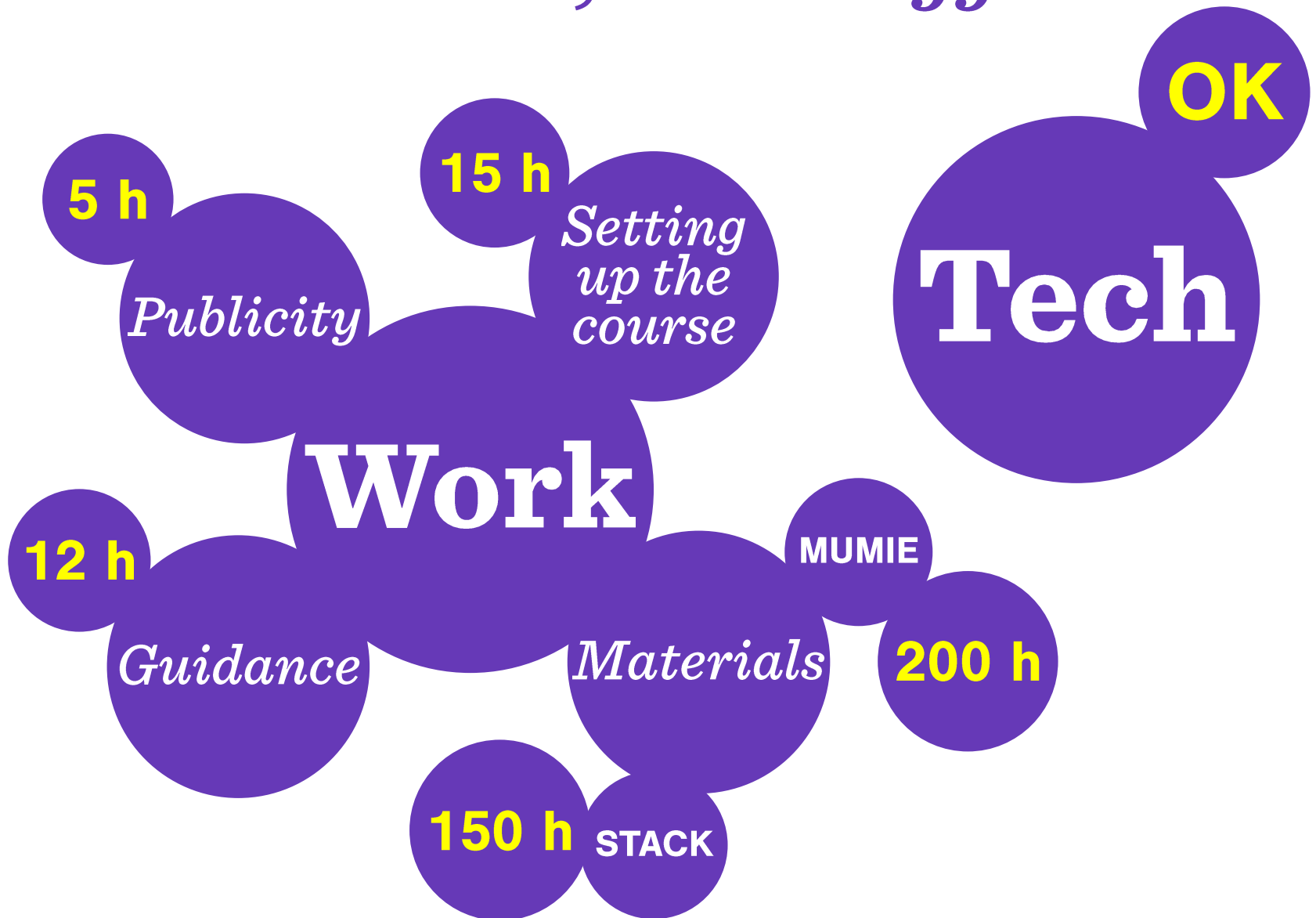
Gym program



Research Qs



Needed workload, technology



Students' previous experiences, beliefs



High school grade



I learned to study independently in high school



I had computer-aided teaching in high school



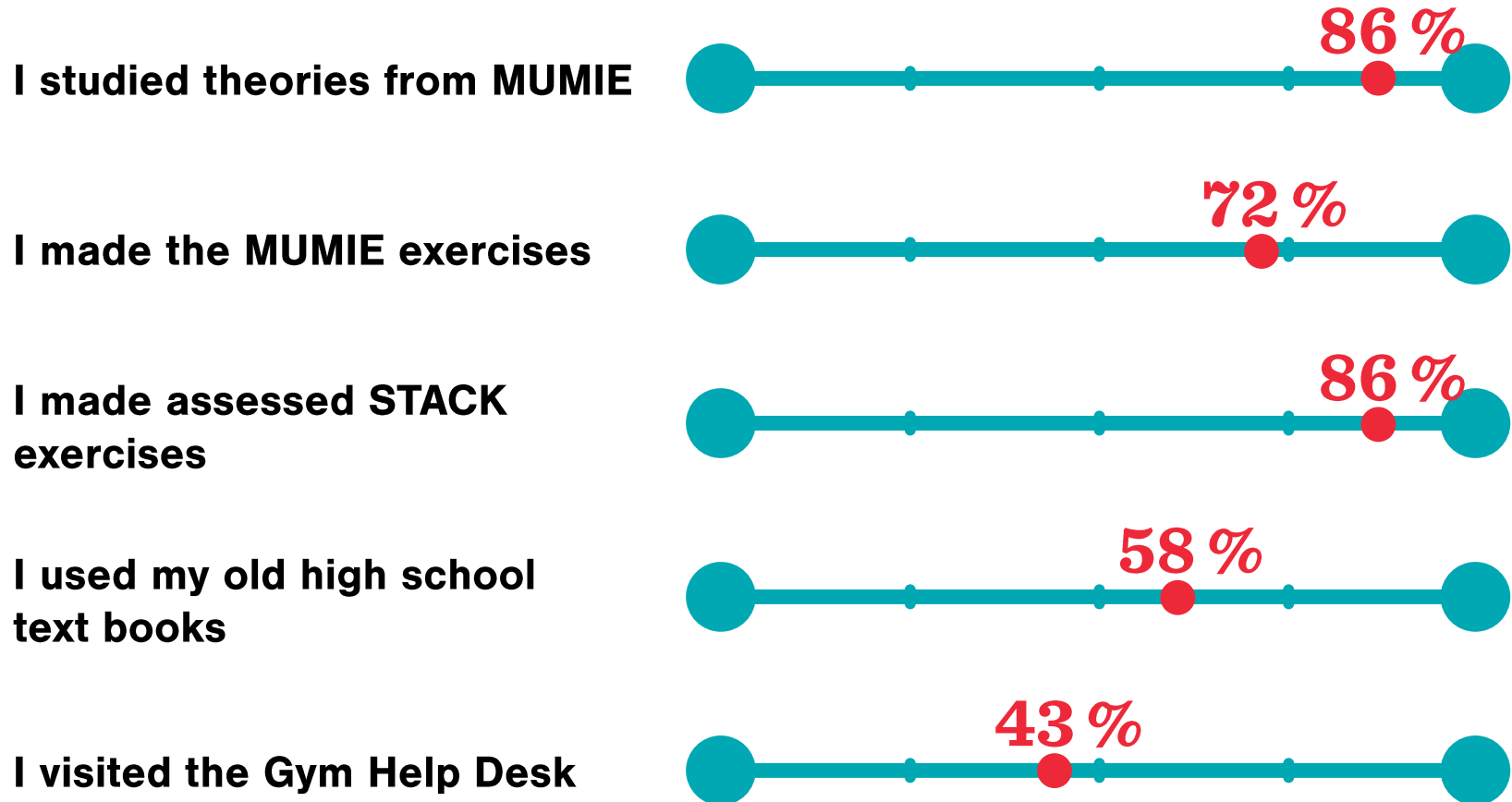
I think, that it is important to study independently in the university



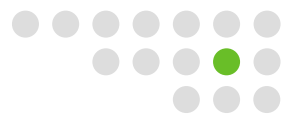
I think, that it is important to be able to study computer-aided in the university



How the materials were utilised?



"Exersices on internet were handy for working when I had time for it."



General opinions on the materials

Using web e-materials is as easy as using printed



Using English material is as easy as using Finnish



I prefer e-materials over traditional ones



Using e-materials is better for learning than trad. ones

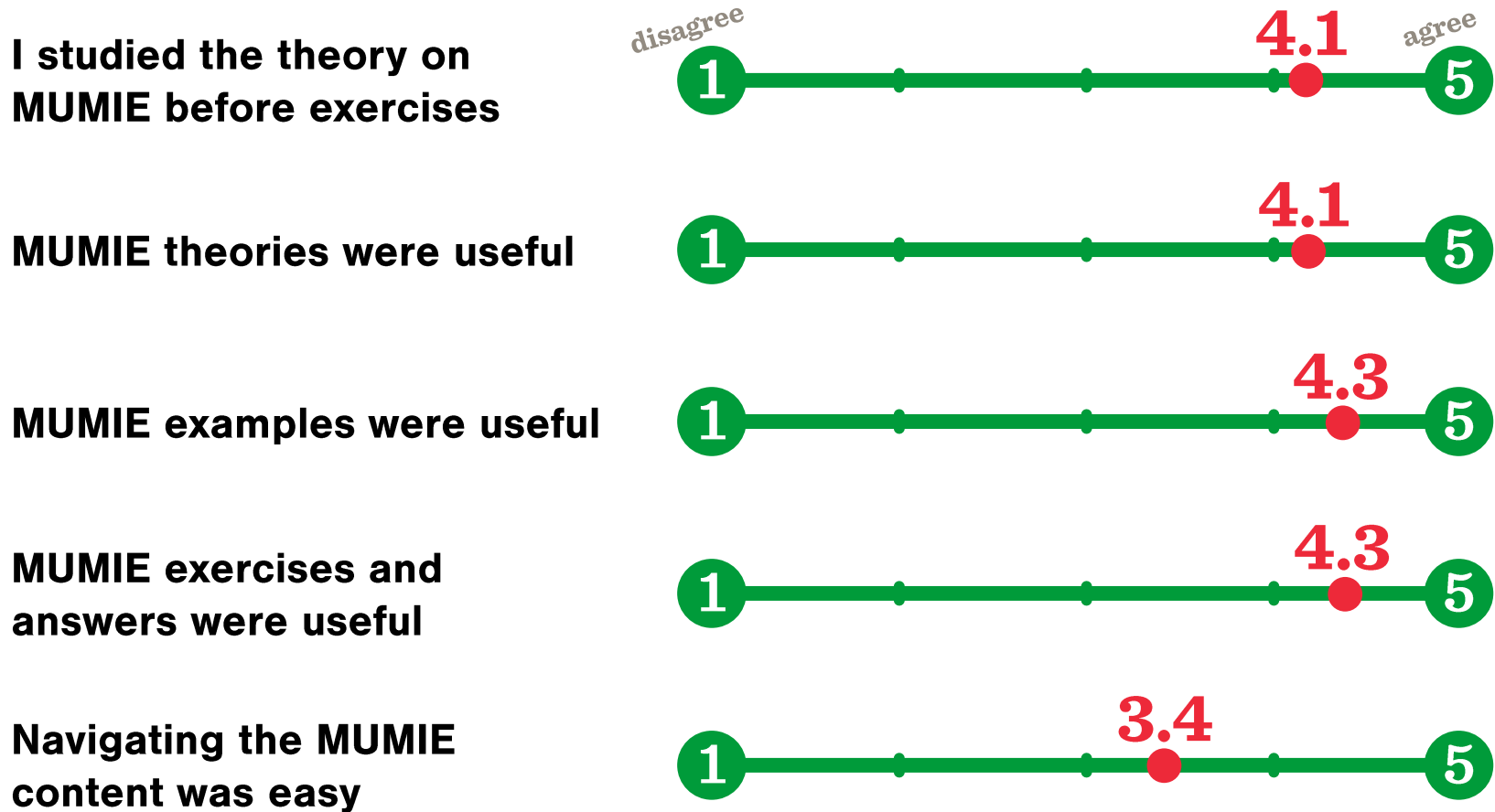


Help Desk must be available



”The materials were good and easy to understand.”

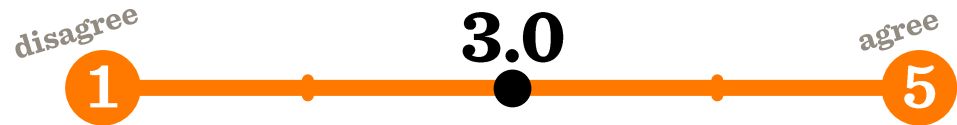
Opinions on MUMIE



"MUMIE exercises need more explanations."

Opinions on STACK

It was easy to answer
in STACK



There was enough guidance
for writing the answers



The exercise feedback
was useful



The STACK system and
exercises were working well



Navigating the STACK
content was easy



General opinions

Participating the Gym
was useful for me



Gym-styled rehearsing before
studies in university is useful



*"It was good to practice integrals
and derivative, since I hadn't
done math for three years."*

*"The Gym should continue all
year round."*

*"I have good feelings about the
Math Gym, because I believe it
was useful for me."*

*"The Math Gym was very
useful for me."*

Grade for Gym



"Good idea! I'd like to see the Gym to continue."

Future Qs

