



Assessment of Student Achievement in HE
just two thoughts ...

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Learning Analytics?

“Learning analytics is about collecting traces that learners leave behind and using those traces to improve learning.”

- Erik Duval



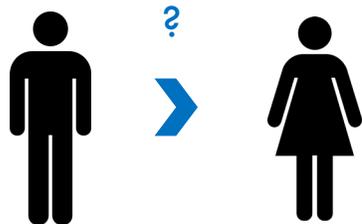
Assessment for learning
-> Learning Dashboards for feedback at scale!

[!] Feedback must be “actionable”.



Warning!
Male are 10% less likely to
be successful.
You are male.

➤ action?

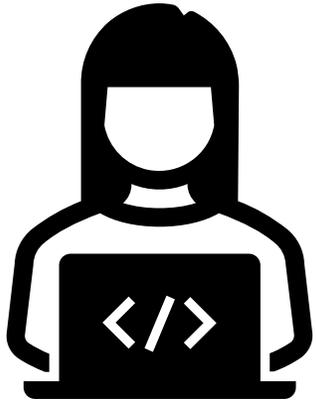


Warning!
Your online activity is
lagging behind.

➤ action?



[!] challenge the idea that data is “objective”



What is online activity showing?

- If a student is learning
... or ...
- If the students is using a computer for learning?
- If students have a personal computer?
- If they have a stable internet connection?

[!] don't forget low hanging fruit!

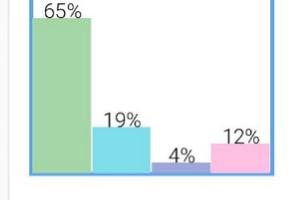
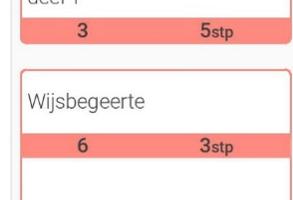
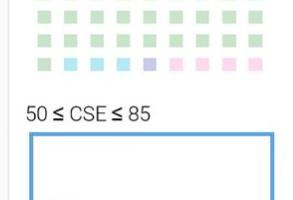
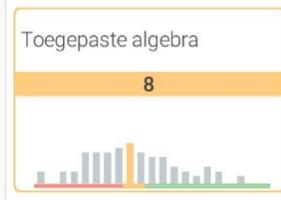
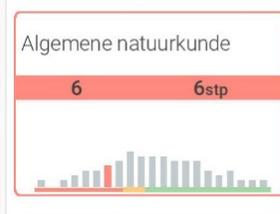
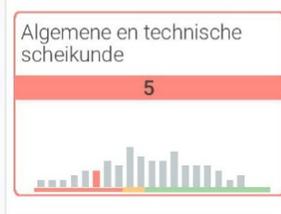
Existing and valid/trusted assessment data

..... for effective feedback at scale (mediated by expert)

LISSA dashboard



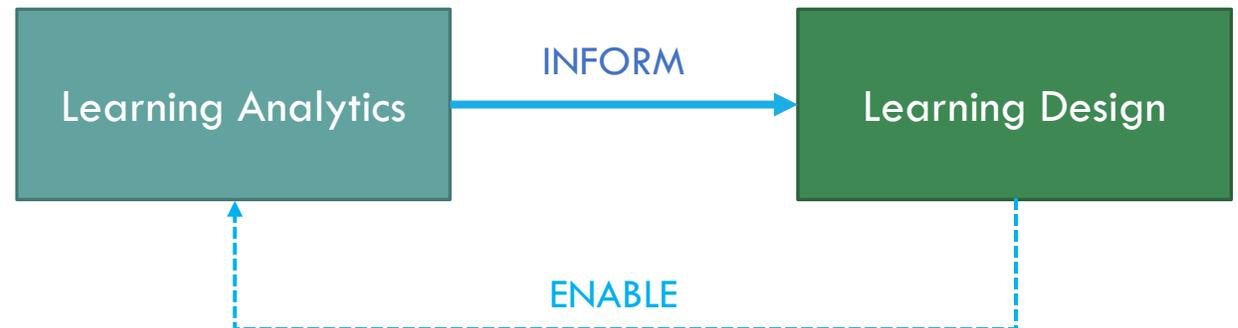
ijkingstoets	tussentijdse toetsen	januari 1e examenperiode CSE 30% 9/30	juni 2e examenperiode CSE 30% 18/60	augustus 3e examenperiode CSE 72% 43/60	onsuccesvolle vakken tolerantiepunten 8/12	studiebelastingplanning 180/180	bachelor 3j 4j 5j niet
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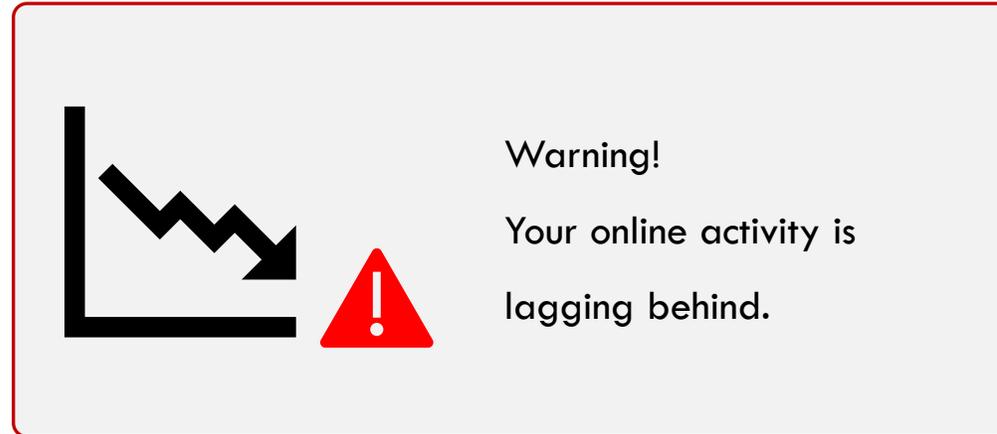
[!] Keep Learning Analytics in mind when designing learning activities.

If LA indeed contributes to improved learning design...

... don't make it an afterthought



[!] Beware of students “gaming” the system



➤ action?



Especially for summative assessment.

Do not forget about formative assessment!

Are the actions done related to actual learning?

[!] Don't forget about educational theory

Technology is just a means ...

... but a powerful means that offers world of possibilities

So let technology

- Challenge the status quo
- Support evolution towards powerful assessment for learning

Fair tests ...

We tend to overrate how fair our “traditional” tests are ...

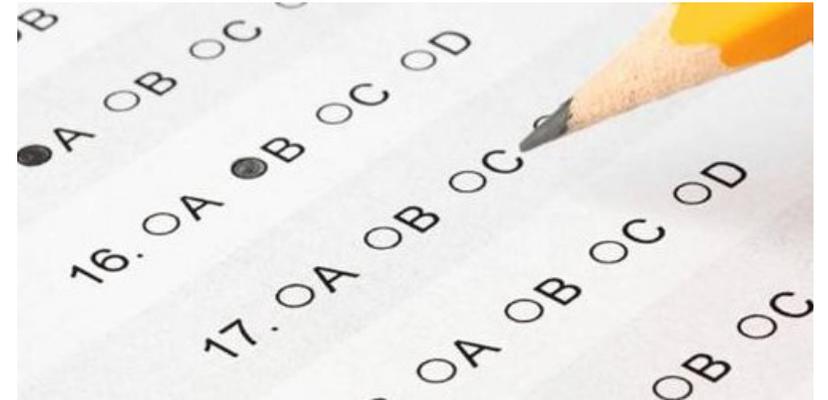
e.g. oral examination (impact of how fast he/she is to get oral clues, implicit bias, ...)

Can technology help us?

One example: “logistical support” for less-biased scoring methods of multiple choice assessment

Fair scoring of multiple choice tests?

- can be graded automatically ⇒ technology!
- guessing in multiple choice exams is considered as a problem



What is the temperature in the room (up to 0.5°C precise)?

10-14.5°C 15-19.5°C 20-24.5°C 25-29.5°C



score

correct

1

blank

0

wrong

-1/3

Typical **correction for guessing**

-> disadvantageous for risk-adverse students

Fair multiple choice tests?

Elimination marking

- student eliminates alternatives by indicating which alternatives are impossible
- awards partial knowledge
- still discourages guessing
- less impact of personality trait risk-aversion

<i>type of knowledge</i>	<i>score</i>	
perfect knowledge	1	3 distractors eliminated, correct answer not
partial knowledge type 2	1/3	2 distractors eliminated, correct answer not
partial knowledge type 1	1/9	1 distractor eliminated, correct answer not
blank	0	0 distractor eliminated, correct answer not
wrong	-1/3	correct answer eliminated

What is the temperature in the room (up to 0.5°C precise)?

10-14.5°C

15-19.5°C

20-24.5°C

25-29.5°C

⊖

⊖

⊖

⊖

⊕

⊕

⊕

⊕



THANK YOU! |