Enhancing student self-regulation through programmatic assessment

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Aim & research questions

The aim of the current study is to discover to which degree studying within a course program based on programmatic assessment enhances self-regulation of students compared to students in a traditional course program. The results of the study could provide guidelines for the implementation of self-directed learning within course programmes at HAS green academy, in particular aimed at programmatic assessment.

1. How do students in their first course year score on self-regulatory skills?
2. In which phases of Zimmerman's self-regulation model do differences occur between students in a traditional vs. programmatic course programme?
3. If so, can these differences be linked to the instructional design of the course programme?
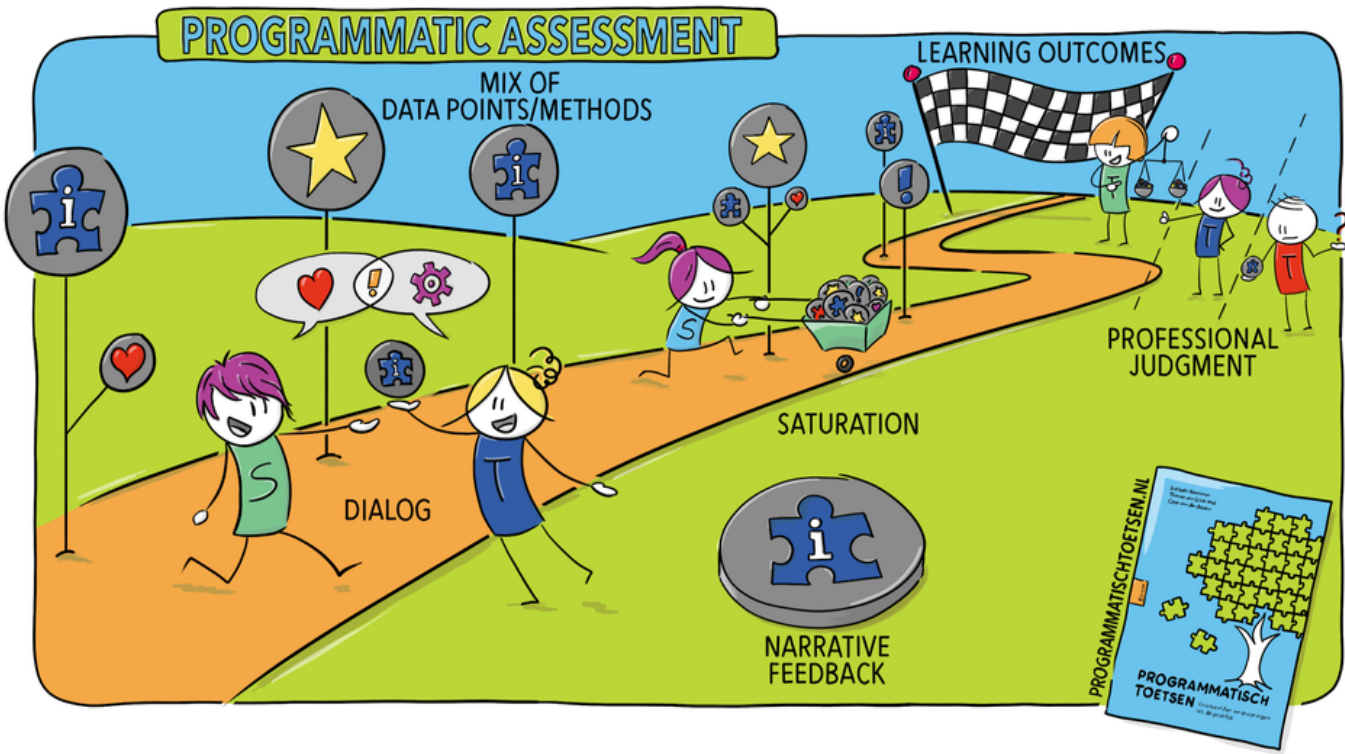
Methods

CP-SRLI Questionnaire

Dutch language adaptation of the MSLQ (15 scales, 78 items, 5-point Likert scale) based on Zimmerman's/Pintrich's model for self-regulated learning (SRL) (Vandevelde, Keer, & Rosseel, 2013). The combination of SRL and motivation provides detailed information about students' learning strategies.

	Baseline measurement (sept 22)	End of year 1 (june 23)
Applied biology Venlo (programmatic)	34	22
Applied biologyDen Bosch (traditional)	132	19

Focus group

Following the measurement at the end of year 1 a focus group was conducted with 7 first year students from Venlo (programmatic assesment). Questions were focused on the link between educational activities, including assessment, and self-regulation.

Results - questionnaire

Scores on task analysis, identified regulation (forethought phase) and product evaluation (reflection phase) are already higher (average 3.5-4.2) at the baseline measurement. Scores on external regulation (forethought phase) and process evaluation (reflection phase) werelower (average 2.0-3.0).

Significant differences were found between groups (traditional v.s. programmatic assessment) and measurements (development over time) on only 4 scales (light green/red arrows), There were strong trends on two other scales (dark green/orange arrow).

Results - focus group

Students percieve the relation between feedback and feedforward related to the datapoints and self-regulation. They indicate that they need more support to better utilize this feedback. In hindsight, they recognize different educational activities which supported their self-regulation skills. The focus group gave them a lot of insight and they suggested doing this as a educational activity.

Conclusions

At the moment the implemented changes do not appear to have the desired effect of improving students self regulation skills.

- The implemented changes or the execution are insufficient
- Dunning-Kruger effect, students realize how much they don't know in a curriculum that tries to actively teach self regulation
- It is not possible to learn self regulation in 1 year

Follow-up
Student development will be monitored during the next 3 years with both the questionnaire and focus groups.

References

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