

Teachers stimulating self-regulated learning via co-regulated formative assessment practice

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Short introduction

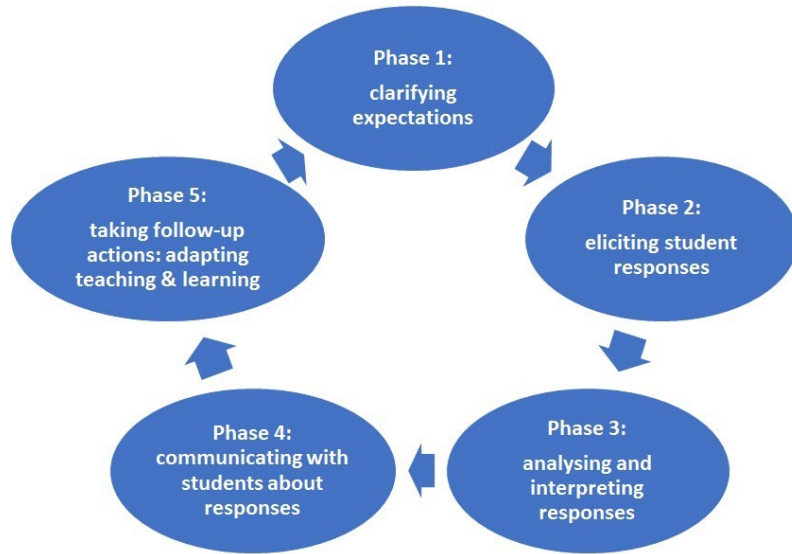
- Marijke Veugen, PhD student at WUR
- Dissertation about formative assessment in secondary education
- Defense planned at 18th of October 2023

- Research is connected to a FA learning network between 2018 and 2022
- 13 secondary schools in the Netherlands participated, with about 100 teachers
- The FA cycle is used as framework for FA

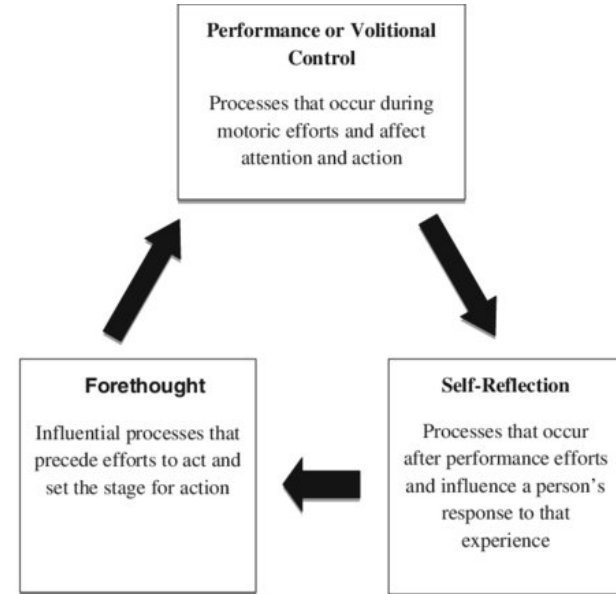
Reason for this research

- Many teachers want their students to take more ownership in their learning or to self-regulate their learning
- Formative assessment (FA) could be a useful method to stimulate self-regulated learning (Andrade & Brookhart, 2020; Panadero et al., 2018)
- FA and SRL have similar processes (planning – doing – evaluating)

Theory



FA cycle
(Gulikers & Baarman, 2017)



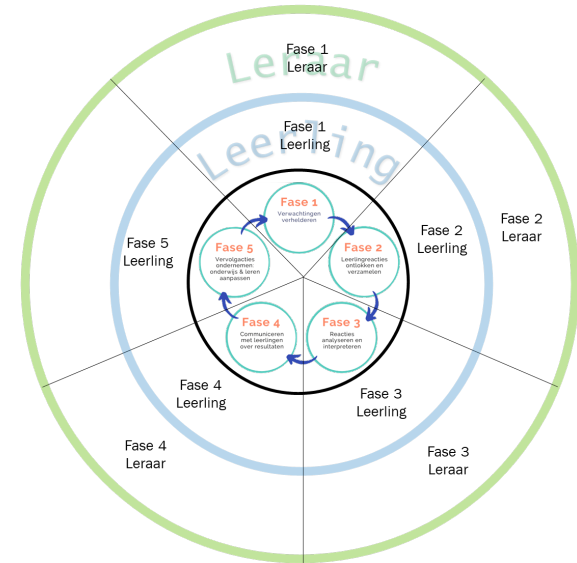
Self-regulation model
(Zimmerman, 2000)

Theory

- “New” concept co-regulation: *“The joint influence on student learning of the learner’s processes of self-regulation and of the sources of regulation in the learning environment”* (p. 7, Allal 2020).
- With other words, in coregulated FA processes the interaction between student and teacher is central.
- The teacher stimulates and activates the student in the FA process, so the self-regulated learning of the student is stimulated (scaffolding) (Bailey & Heritage, 2018).

Theory

- An earlier study shows that teachers differ in how they describe student FA behaviour and fitting teacher FA behaviour (co-regulated FA) (Gulikers, Veugen & Baartman, 2021).
- The descriptions mostly differed in terms of:
 - Concreteness
 - Alignment between phases
 - Who steers who (student(s)/teacher)
 - Focus on task or learning process



Theory

This study (Gulikers, Veugen & Baartman, 2021) also concluded that:

- By defining concrete student FA behaviour, teachers were able to also make teacher FA behaviour more concrete.
- Teachers noted that they needed to design the learning environment for students to be engaged and use self-regulation → co-regulation.

Research questions

1. How much planned and unplanned teacher and student FA behaviour of the five phases of the FA cycle is observed in the classroom, when FA is implemented to stimulate students' SRL?
2. What do FA behaviours look like that show co-regulated FA that stimulates students' SRL?

Method

Participants

14 teachers from the FA learning network

All experienced with implementing FA in the classroom

Want to take it a step further and stimulate self-regulated learning of students

Differ in gender, subject taught, teaching experience etc.

Two schools: one vocational education, one senior general and pre-university education

Method

Procedure

2 training sessions, between two sessions teachers provided a lesson:

1. First session: constructing co-regulated FA practices in the five phases
2. Teachers prepared a lesson and planned co-regulated FA practices
3. Teachers provided the lesson, a colleague observed the lesson
4. Teachers handed in their lesson plans and reflections on the lessons
5. Second session: reflecting on the provided lessons and on the implementation of co-regulated FA

Method

Analyses

Data: Lesson plans, observation forms and audio fragments of the training sessions

Research question 1: the data was fragmented into FA practices, coded based on the five phases and counted how many of these practices were planned/unplanned and implemented.

Research question 2: within these fragments we looked at FA practices where students and teachers together executed the FA practice → co-regulated FA

Results

Research question 1

Of all **teacher** FA behaviours, 33% was planned and implemented, 7% was planned and not implemented and 60% was unplanned and implemented.

Of all **student** FA behaviours, 28% was planned and implemented, 16% was planned and not implemented and 56% was unplanned and implemented.

Similarity between both groups was that most behaviours were phase 2 FA practices.

A difference was that teachers showed the least behaviours in phase 5 and students in phase 1.

Results

Research question 2

A bit less than half of the FA behaviours showed co-regulated FA → teacher and students together executed the FA activity

These activities differed in if they were teacher or student centred. Most of them (65%) were student centred.

- For example, a teacher centred activity is: the teacher discusses the learning goals and success criteria and students listen (phase 1).
- A student centred activity is: the teacher stimulates students to analyse their own/peers' work, students analyse their own or peers' work (phase 3)

Conclusions

Research question 1

Teachers actually implement most of their planned FA practice. However, most of the FA practice is unplanned. This could mean that:

- FA has become a daily teaching activity that teachers easily use.
- Teachers use more FA than they are aware of → they use FA unconsciously
- It is very valuable to let a colleague observe the lesson. This helps to discover more FA that actually takes place and helps teachers to reflect on their own lesson and improve their FA skills.

Both planned as well as unplanned FA are important to implement (e.g. Heitink et al., 2016; William & Leahy, 2015).

Conclusions

Research question 2

Teachers who already learned to implement FA in their teaching are able to also use FA in a co-regulated manner.

Teachers differ in how they use co-regulated FA.

There is a difference between using co-regulated FA more teacher centred versus student centred, of which the student centred form of FA will probably stimulate the self-regulated learning of students more (Bailey & Heritage, 2018).

Questions?

Thank you.

Do you have questions?

Room voor discussion

Questions from me to you:

- Why would it be important to implement formative assessment in a co-regulated manner?
- What FA practices do you see happening in your educational environment?
- What do we need to focus on next when we talk about assessment in general?

Literature

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