Self-regulated learning, student involvement and self-assessment

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The self-regulated learner: The goal of Assessment for Learning

‘The true test of intelligence is not how much we know how to do, but how we behave when we don’t know what to do’    (John Holt, How Children Fail)

‘What the student does is actually more important in determining what is learned than what the teacher does’    (Thomas Shuell)

‘Learners must ultimately be responsible for their learning since no-one else can do it for them’    (Assessment Reform Group)
Self-regulation

‘Students who self-regulate their learning are engaged actively and constructively in a process of meaning generation and ... they adapt their thoughts, feelings, and actions as needed to affect their learning and motivation’

Monique Boekaerts

Boekaerts’ dual-process self-regulation model:

1. *Self-regulated learning* (learning goals, mastery learning)

2. *Maintaining and restoring well-being* (for example, try to look smart and protect their ego, try to avoid harm, withhold effort)

Threats to well-being: tasks seen as too difficult, disinterest, stress
Children and young people can develop their confidence through thinking about and reflecting on their own learning. They should have regular time to talk about their work and to identify and reflect on the evidence of their progress and their next steps, including through personal learning planning. Through frequent and regular conversations with informed adults, they are able to understand the progress they are making.
The new regulations in the Education Act are founded on four key principles for effective formative assessment, namely that pupils learn best when they:

1. Understand what they are supposed to learn and what is expected of them;
2. Receive feedback that informs them about the quality of their work or performance;
3. Receive advice on how they can improve;
4. Are involved in their own learning activities for example through assessing their own work and development.

(Norwegian Directorate for Education and Training, 2011)
Positioning Assessment for Learning

And the best way to increase learning? Move the focus off the teacher and onto the student.  

David Kolb
How can we encourage self-regulated learning?

1. **Create favourable learning environments**: ‘safe to take risks’, high expectations, ‘personal bests’

2. **Make the learning meaningful**: relevance, ‘tuning in’

3. **Help learners be clear about goals of learning** — ‘know where they’re going’ — making sense

4. **Show learners they can manage the learning** — ‘sweet spot’; zone of proximal development (zpd), don’t ‘over-help’

5. **Encourage positive motivation and emotions** - learning under control (effort and strategies), source of pleasure and pride

6. **Help learners cope with negative emotions** — coping strategies, reduce performance anxiety or boredom, modelling, reduce arousal  

(source: Boekaerts)
Classroom practices to encourage self-regulation

Giving learners time to think

Here’s a comment from a teacher who changed his practice:

Increasing waiting time after asking questions proved difficult to start with – due to my habitual desire to ‘add’ something almost immediately after asking the original question. The pause after asking the question was sometimes ‘painful’. It felt unnatural to have such a seemingly ‘dead’ period but I persevered....Now, after many months of changing my style of questioning I have noticed that most students will give an answer and an explanation (where necessary) without additional prompting.
Classroom practices to encourage self-regulation

Learners as questioners

Once you have learned to ask questions – relevant and appropriate and substantial – you have learned how to learn and no one can keep you from learning whatever it is you need to know. (Postman and Weingartner, *Teaching as a Subversive Activity*)

‘What questions did you ask in school today?’ (Einstein’s mother)

Why do our pupils ask so few thoughtful questions?
Why do they ask fewer as they get older?
Classroom practices to encourage self-regulation

Ways of encouraging question asking

• Using group work to encourage questioning:
  – developing questions to ask other groups

• Written questions
  Question box / ‘Hold on miss I’ve got a question’ board/
  Exit questions

• Role play – interview the expert

• Don’t know the answer – please research
Classroom practices to encourage self-regulation

Listening carefully

Are there parallels with medicine?

Doctors will ask us what brought us there – ‘the odds are overwhelming that the patient won’t have much of an opportunity to tell that story’. Why? Because a ‘facts only’ attitude will mean doctors are likely to interrupt with interrogation questions. Even when being taped, research revealed that doctors interrupted their patients 75 percent of the time. In one study, doctors listened for an average of 16 seconds before breaking in, some interrupting the patient after only three seconds.

‘Once the story was interrupted, patients were unlikely to resume it. In these recorded encounters fewer than 2 percent of the patients completed their story once the doctor broke in’. (Lisa Sanders)

Watch out for interrupting with ‘you should.....’or ‘you must...’
Classroom practices to encourage self-regulation

Setting questions

...pupils setting their own questions has proved to be a stimulating and productive means of rounding off topics and revising their work. Answering other people’s questions and discussing solutions with the whole class is a very effective way of concentrating on topics that need to be revised rather than spending time on what is already known. Students have had to think about what makes a good question for a test and in doing so need to have a clear understanding of the subject material.
The importance of student involvement

‘The chief impediments to learning are not cognitive. It is not that students cannot learn; it is that they do not wish to.’ Mihalyi Csikszentmihalyi

In his *Talented Teenagers* study he found that students were most motivated when their teachers:

- were personally involved in the subject and communicated this passion
- centred attention on challenges and the satisfaction of learning something new
- provided informative activity-focused feedback
- had a flexible and dynamic attentional style that sought to match skills to challenges
- allowed students freedom and autonomy to develop their own solutions and approaches
Classroom practices to encourage self-regulation

Letting learners choose and find their own solutions

Choice gives learners some control over their learning – a source of positive motivation

‘Think autonomy, not control. State the outcome you need. But instead of specifying precisely the way to reach it . . . give them freedom over how they do the job.’ Daniel Pink
And the Nobel prize goes to ... the man ridiculed at school for science ambitions

Briton commended for pioneering cell research

Eton schoolmaster told him he'd never make it

According to his schoolmaster at Eton, Gurdon at 15 did not stand out as a potential scientist. Writing in 2006, Gurdon quoted a school report saying: “I believe Gurdon has ideas about becoming a scientist; on his present showing this is quite ridiculous; if he can’t learn simple biological facts, he would have no chance doing the work of a specialist, and it would be a sheer waste of time, both on his part and of those who would have to teach him.”

That year, Gurdon scored the lowest mark for biology in his year at Eton. “Out of 250 people, to come bottom of the bottom form is quite something, and in a way the most remarkable achievement I could have been said to make,” he said.

He keeps his old school report, now a brownings scrap of paper, on his office wall, where it is the only framed document. “When you have problems, like an experiment doesn’t work, which often happens, it’s nice to remind yourself that perhaps after all you’re not so good at this job, and the schoolmaster might have been right.”
Sir John Gurdon’s school report

This has been a disastrous half [year]. His work has been far from satisfactory. His prepared stuff has been badly learned . . . And several times he has been in trouble because he will not listen, but insists on doing his work in his own way. I believe [he] has ideas about becoming a scientist; on his present form this is quite ridiculous; if he can’t learn simple biological facts, he would have no chance of doing the work of a specialist and it would be a sheer waste of time, both on his part and those who teach him.

What do you think was going on here?
Success criteria: Showing learners they can manage the learning & encourage positive motivation and emotions

What will a good performance look like?

Success criteria need:

- **Negotiation:** ‘what would you expect to see in a successful piece of work?’

- **Exemplars:** ‘which of these two (or more) pieces of work best meets the criteria?’ – an important step in self-assessment

- **Modelling** – ‘Here’s what I mean…’

- **Guided practice** – activity > independent practice
Negotiating success criteria – a 4 step process

(Gregory, Cameron & Davies)

1. Brainstorm
2. Sort and categorise
3. Make and post a chart
4. Add, revise, refine

For example, what would be a good programme for a family visiting Oslo for a weekend?
Feedback that closes the gap

- *It is most effective when:*
  - It is effectively timed and is specific and clear;
  - It is clearly linked to the learning intention;
  - The learner understands the success criteria/standard;
  - It focuses on the **task** rather than the learner (self/ego);
  - It gives cues at appropriate levels on how to bridge the gap;
  - It offers **strategies** rather than solutions;
  - It **challenges**, requires **action**, and is **achievable**.
Good feedback causes thinking

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Learning to give feedback: Snowballing peer assessment to a best answer

• Students arranged in groups of 3 or 4
• Students given questions or calculations to do – work alone at first (5 mins)
• Students compare answers, reasoning, working etc. noting differences. They discuss and try to agree
  – Which are correct or best methods, workings, reasonings and answers and *why*
  – The group’s idea of the ‘best answer’
  – What errors were made and *why*
• Students then given model answers and compare with group answers
• Class discussion of issues.  

(Source: G. Petty)
Negative feedback as a ‘thorn’

When pupils are not given time to act on the feedback they see it as negative and critical which makes them feel ‘useless’. If the are given time and the teacher follows up on the feedback it is treated as positive.

(Gamlem and Smith)
Classroom practices to encourage self-regulation

Helping learners cope with negative emotions

Students direct their attention away from learning when they experience negative emotions such as performance anxiety, boredom, ‘learned helplessness’.

Help develop coping strategies and motivation regulation strategies

Set tasks in the learning zone

Avoid ability talk

Reduce emotional distractions
Self-regulated learning – getting the right kind of well-being

- **Involves self-direction** – ‘want to achieve’, leaving the comfort zone
- **Develops self-assessment** – ‘can judge if achieving’ – monitoring progress
- **Uses emotional and motivational resources in the service of learning** – ‘can do it’, coping strategies, determination
- **Avoids ‘well-being’ strategies that work against productive learning** – ‘learned helplessness’, social rather than learning strategies