# SELF-REGULATED LEARNING

IN AN ONLINE ENVIRONMENT

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#### **ACTIVITY 1A**

# What do you think students need to do in order to be successful in online learning environments?



Work with 2 or 3 persons. Write down the activities that you think students should be doing or the skills a student should have to be successful on the sticky notes provided.

Please use one sticky note for one activity or skill.



# REGULATING LEARNING

#### **Self-Regulated Learning**

- The individual as a regulator of a behavior.
- Learners actively interpret and reorganize ideas.

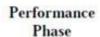
#### **Co-Regulated Learning**

- Learners and others share a common problemsolving plane
- A learner and another (often a more capable other, e.g., a more advanced student, peer tutor) sharing in the regulation of learning for the learner.

#### Socially Shared-Regulated Learning

- Multiple learners regulating their learning collectively.
- Socially shared cognition whereby goals and standards are co-constructed





Self-Control

Imagery

Self-Instruction

Attention focusing

Task strategies

Self-Observation

Self-recording

Self-experimentation



#### Forethought Phase

Task Analysis

Goal setting

Strategic planning

Self-Motivation Beliefs

Self-efficacy

Outcome expectations

Intrinsic interest/value

Learning goal orientation



#### Self-Reflection Phase

Self-Judgment

Self-evaluation

Causal attribution

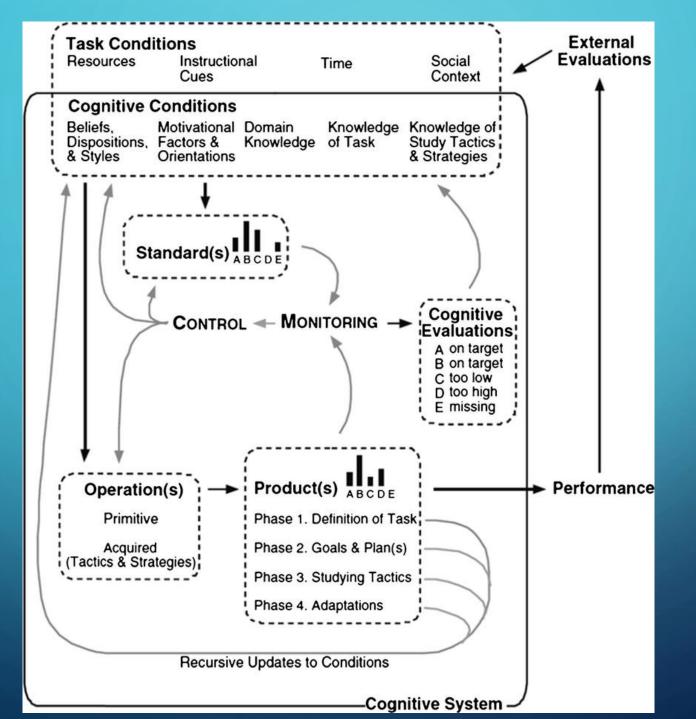
Self-Reaction

Self-satisfaction/affect

Adaptive/defensive

Figure 1. Zimmerman's Model of Self-Regulated Learning. Adapted from "Becoming a Self-Regulated

Learner: An Overview," by B. J. Zimmerman, 2002, Theory Into Practice, 41, P. 67.



(Winne & Hadwin, 1998)

## KEY TAKEAWAY 1

Students are required to be engaged in various different types of activities involving (self)regulation of learning.

#### **ACTIVITY 1B**

What do you think we can measure about selfregulated learning behaviors or skills in online learning environments?



Work with 2 or 3 persons. Use the sheet of paper, divide it in two equal parts, **left: not measurable, right: measurable**. Stick the notes from the previous exercise on the sheet.

#### LEARNING ANALYTICS AND SRL

- Calculation (e.g., duration, count, probability)
- Recommendation (e.g., what should be changed and instruct how)

→ Learning analytics have the potential to support student's self-regulated learning processes and develop their self-regulated learning skills

#### YET...

- Learning analytics methods have been developed based on trace data from learning management systems and/or MOOCs
  - Not always easy to interpret (e.g., revisiting quizzes, watching a video or not)
    - Do these traces represent SRL behaviors, processes or skills?

 Questions on what to trace, how to trace, how to present this data back to students?

## KEY TAKEAWAY 2

There are many possibilities to measure and/or support (self-)regulation of learning, but is not easy or straightforward.

# WHAT ABOUT YOU?

Teacher? Researcher? Data scientist? Educational scientist? Educational psychologist?

#### KEY TAKEAWAY 3

Supporting (self-)regulation of learning requires educators, psychologists, instructional designers, and computer scientists to work together.

Session 6: Design your own learning analytics dashboards By Ioana Jivet and Manuel Valle Torre

# THANK YOU!

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