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METACOGNITION & COGNITIVE SELF-REGULATION

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Erasmus

Education Commission
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FREREF

UNIMORE
UNIVERSITÀ DEGLI STUDI DI MODENA E REGGIO EMILIA

ÖREBRO UNIVERSITY

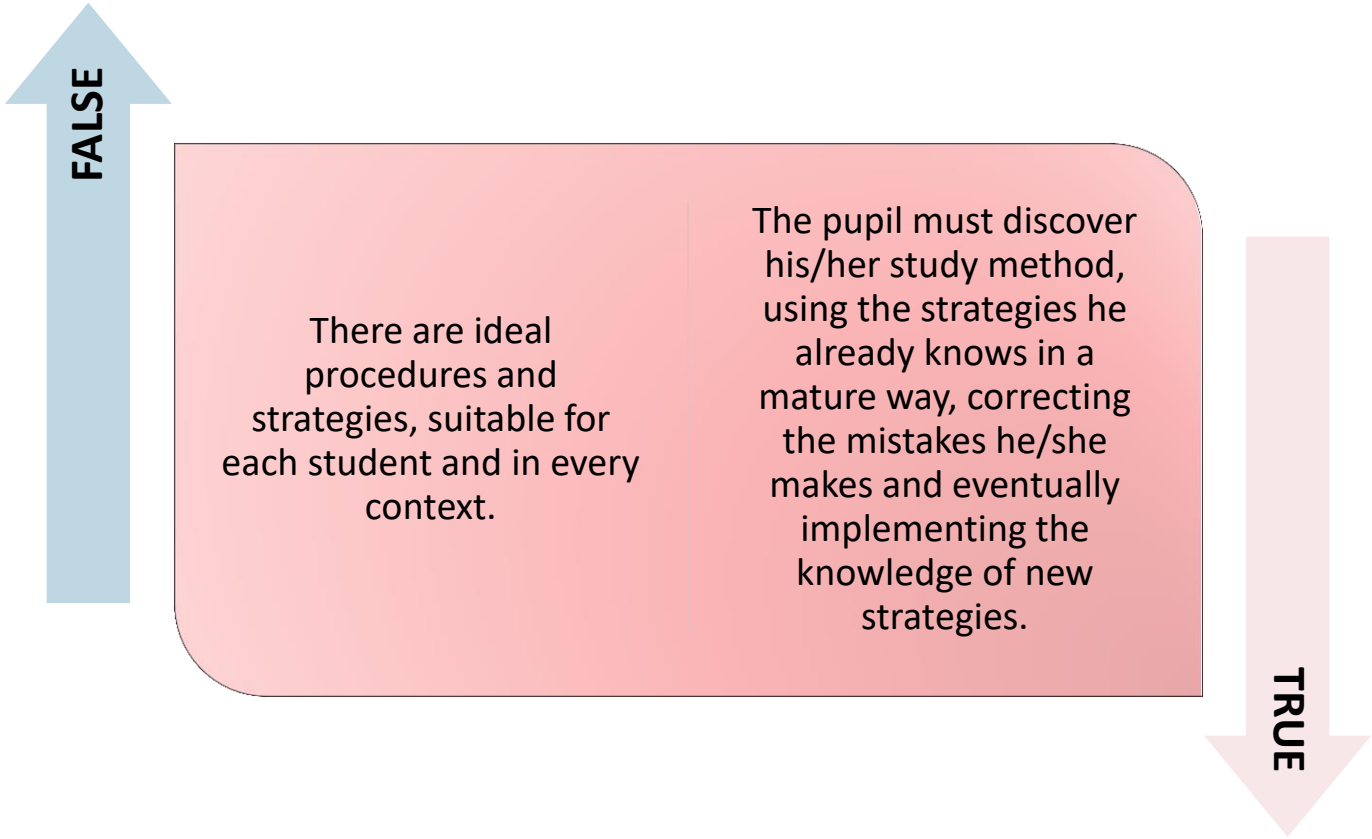
Vlinderwijs

What is learning?

A relatively stable change in the behavior of the individual, which derives from the acquisition of new knowledge and skills.

This change reflects the modifications that occurred at the level of the knowledge he possesses.

Misconceptions about learning



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How do we learn?

Learning

Cognitive processes	Perception	
	Attention	
	Memory	
	Thinking	
	Cognitive and learning styles	
Metacognitive processes	Metacognitive Knowledge	*Declarative Knowledge* *Procedural Knowledge* *Conditional Knowledge*
	Metacognitive regulation	*Planning* *Monitoring* *Evaluating*
Emotional and motivational processes	Self-efficacy	
	Motivation	
	Implicit theories of intelligence	
	Attributional styles	

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What is metacognition?

"Born" in the 1970s

It refers to the activities of the mind that have the mind itself as their object, both in terms of "reflecting on" and of control processes

Close to the concept of "awareness", it works like a "cognitive booster", bettering the individual's cognitive processes

Metacognition is fundamental in LEARNING HOW TO LEARN.

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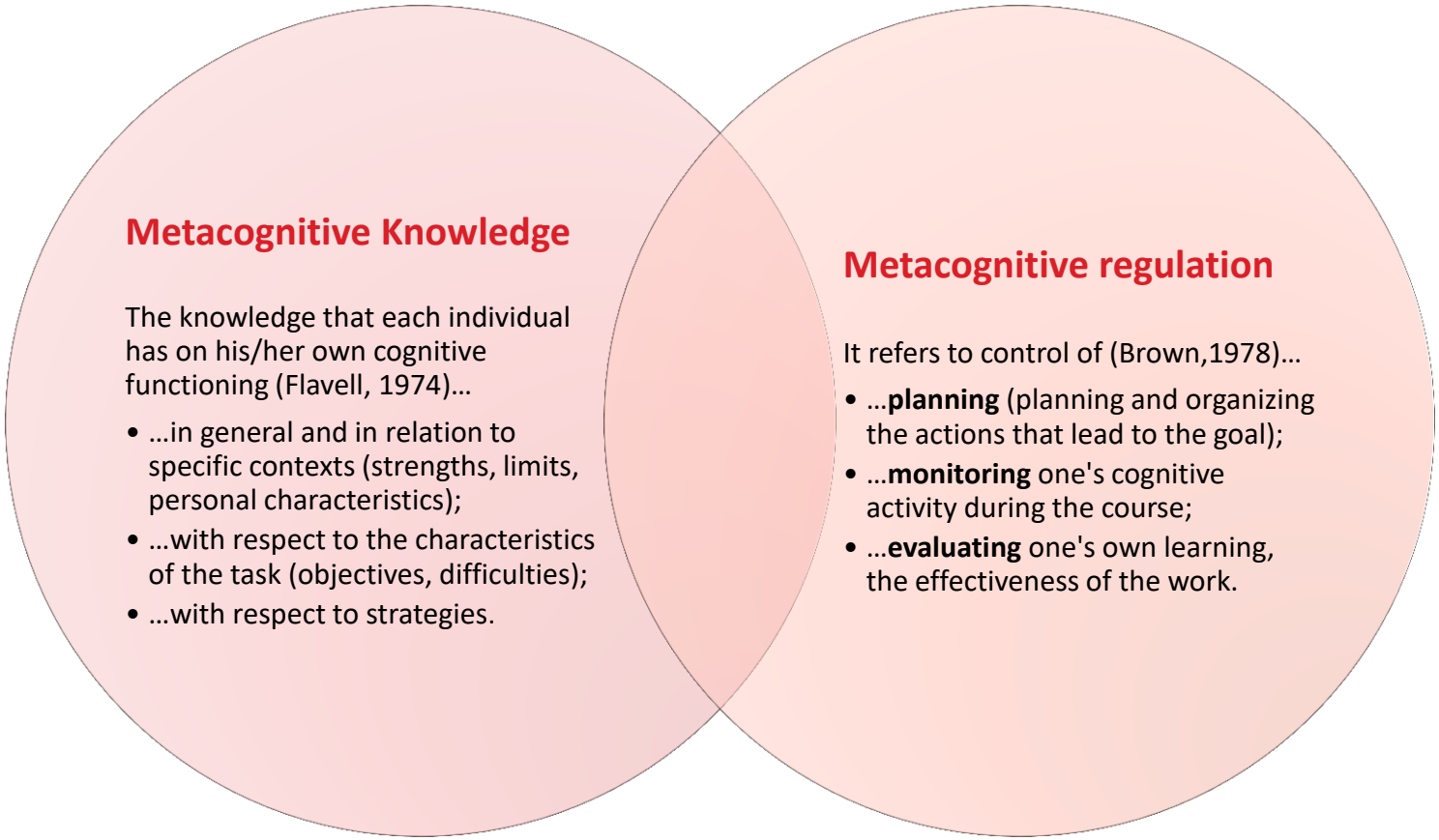
How do we learn?



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Supporting metacognitive regulation

Examples of questions that can be used with the students

	Cognitive side	Motivational side	Environment side
Planning	What is the goal of this task? Which strategies are most effective with this type of task?	Does this task require a lot of concentration? What do I feel about such tasks? Do I like them?	When and where do I study best? Do I have these conditions now?
Monitoring	Am I understanding what I'm doing? Am I making progress towards the goal?	What am I feeling while working there? What is my security level in what I do?	How much does the environment help me? What other materials or resources could I use?
Evaluating	Did I reach the goal? What did I learn from this task? What new goals do I have to reach now?	How much effort was needed to complete this task? How did I get motivated?	Have I encountered any unexpected obstacles in completing this task? How did I fix the difficulties? How well have I organized the study environment?

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Metacognitive teaching

The focus is not on WHAT but on HOW the pupils learn

Aims
• Creating awareness of pupils' strengths and weaknesses • Increasing the capacity for self-regulation with respect to tasks • Linking performance improvement to informed strategy use • Not imposing, but proposing strategies • Offering strong element of guidance and support • Providing examples and models before the task is performed • Evaluating the effectiveness of the strategies, immediately after their execution

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Metacognitive teaching is…

Explicit and intensive

- The learning processes underlying the execution of the task must be explained with examples

Motivating

- The use of strategies should be fostered

Automatizing strategies

- Extensive and prolonged exercises should be provided

Interactive

- Work in pairs/groups! Both teacher-pupils & pupils-pupils

Constructive and active

- Pupils should arrive at building the strategy most suited to both their personal characteristics and those of the task

10 tips about teaching strategies

1. Provide a detailed explanation of the strategy
2. Teach it by providing a concrete example of use
3. Put the emphasis on the control that the strategy allows
4. Have pupils make as many comments as they wish
5. Reinforce the pupils who used the strategy appropriately
6. Invite them to monitor themselves during the use of the strategy
7. Compare the results obtained with and without the use of strategies
8. Encourage pupils to transfer their strategies
9. Teach the use of strategies with different materials and in different contexts
10. Endorse!

(Cornoldi, De Beni and the MT Group, 1993)

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Want to know more?

Check this paper on our website!

http://www.till.org.uk/wp-content/uploads/2019/03/Metacognitive-Awareness-Inventory-for-Teachers-Balcikanli-2011.pdf

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