Applying metacognitive strategies.

Visible Teaching4Performance

STT/L event (blended mobility of school learners)

Portugal 20th-24th March 2019

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This material will serve to build visible, reflective learners , equipped with metacognitive stategies.

It will serve as a foundation for building a school development plan for sustainable learning.

It is a ready to use, sustainable material for implementation at school.
It may be adapted according to school needs.

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Classroom assessment

K-W-L Chart

Complete the first two grids before this workshop and the last one at end.

K	W	L
(What I KNOW Already)	(What I WANT to Know)	(What I have LEARNED)

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LEARNING INTENTIONS

By the end of this session, you will

Understand the impact metacognition can have on your achievement

SUCCESS CRITERIA

By the end of this session, you will:

* be able to define meta-cognition
* be able to define meta-cognitive strategies
* have a clear understanding of what you can do to become a meta-cognitive learner
* be able to develop a grid, plan individual aims, manage time and evaluate

What is your understanding of meta-cognition?

(Think, take notes, pair, share)

……

……

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Definition

meta = ‘about’

cognition = thinking

Meta-cognition :

Purposefully thinking about one’s own thinking strategies – when people are able to “learn to think” and “think to learn”

Meta-cognition is the regulatory system people use to understand and control own cognitive (brain) performance.

It involves people being aware of **how they learn**, **what strategies meet their needs, evaluating the effectiveness of strategies and then implementing the best plan of action to learn effectively.**

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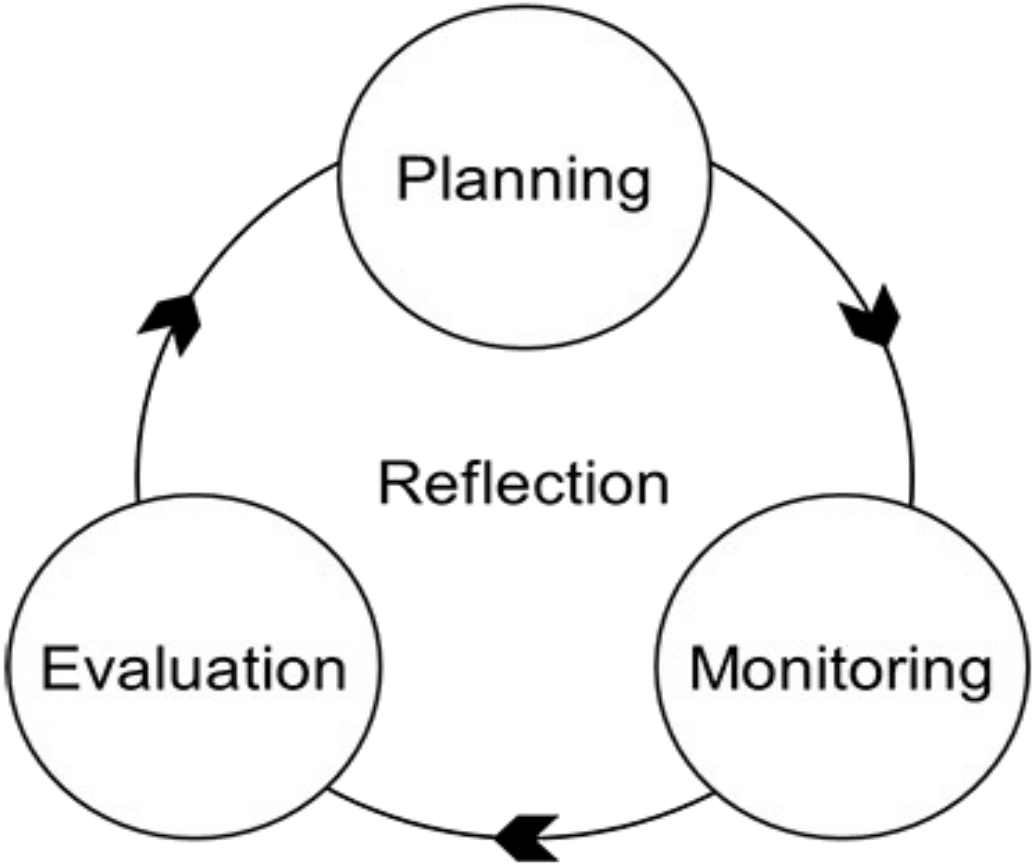
Metacognition phases



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Learners with Strong Meta-cognitive Skills:

Know the limits of their own memory for a task and ask for help where required.

Do frequent self-assessments of their knowledge to ensure they can figure out how well they are learning something.
Self-monitor frequently and use a variety of strategies to learn.

Undertake careful rehearsal of a skill in order to gain confidence and competence.
Plan effectively at many levels and see the big picture of learning

How about you? Discuss the statements above with your partner.

(Think , pair , share)

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LET'S REFLECT ON OUR METAGOGNITIVE AWARENESS

Some octopuses, some fish and a few mermaids were swimming in a sea cave. Altogether there were 38 arms, 24 eyes and 8 tails. How many mermaids, how many fish and how many octopuses were there?

Solve the problem

List the strategies you used

1……

2……

3……..……

4……

5……

Thinking about thinking

- **Did you use one or many strategies**?
- **Which one was most effective?**
- **What might you do differently next time to solve a similar problem**?
- **How would you evaluate yourself as a meta-cognitive learner**?

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Meta-cognitive Awareness Inventory

T

There are two processes going on around learning how to learn.

Most often students (and adults) are unaware of what they are and what is required to improve them.
Put the statements into appropriate categories. (T-P-S) ***think-pair-share***

***Evaluating** own regulation (assessing if the strategy you are using is working or not, making adjustments and trying something new)*
***Choosing** the appropriate strategy for the specific learning situation*
***Monitoring** and controlling learning*
***Awareness of factors** that influence your own learning*
Setting goals** and **planning
***Knowing** a collection of **strategies** to use for learning*

Knowledge of Cognition (Declarative, Procedural, and Conditional)	**Regulation of Cognition**
a..... b..... c.....	a..... b..... c.....

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Metacognitive awareness inventory

1. Fill in the questionnaire (paper version)
2. Check the scoring guide
3. Reflect on the results.

https://goo.gl/forms/nhclpbNX1o7VWqH83

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Meta-cognition consists of three basic elements:

Developing a plan of action.
Maintaining/monitoring the plan
Evaluating the plan

What questions will you ask :

BEFORE – when developing the plan of action?

1……
2……
3……
4……
5……
6……

DURING – when implementing the plan ?

1……
2……
3……
4……
5……
6……
7……
8……
9……

AFTER – when evaluating the plan?

1……
2……
3……
4……
5……
6……

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1. Do I need to go back through the task to fill in any blanks in my understanding?
2. How might I apply this learning/thinking to other problems/tasks?
3. How will I plan this?
4. What is my prior knowledge that will help me with this particular task?
5. Should I adjust the pace to meet the deadline?
6. How am I doing?
7. What should I do first?
8. How should I proceed?
9. What information is important to remember?
10. Why am I doing this exercise?
11. Should I move in a different direction?
12. Am I on the right track?
13. What do I need to do if I do not understand?
14. What is the criteria for success?
15. Am I using my plan?
16. Do I have enough information?
17. How well did I do?
18. Have I met the criteria?
19. Did my particular course of thinking produce more or less than I had expected?
20. What could I have done differently?
21. How much time do I have to complete the task?

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Prepare a poster showing
a meta-cognitive learner.
45 min.

Complete the grid **before, during and after** completing the activity above.

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Sources: materials from Conference What the Best schools Know and do with Professor John Hattie 6th June 2018, London, By Osiris educational

Meta-cognitive awareness inventory / Questionnaire Centre for Innovation and Excellence in Learning | Liesel Knaack + Melissa Robertson | VIU

Schraw, G. & Dennison, R.S. (1994). Assessing metacognitive awareness. *Contemporary Educational Psychology, 19,* 460-475.

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Thank you for attention!

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