

# BUILD ON INDIVIDUAL DIFFERENCES

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## Erasmus

**Education  
Commission**  
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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

# Cognitive styles

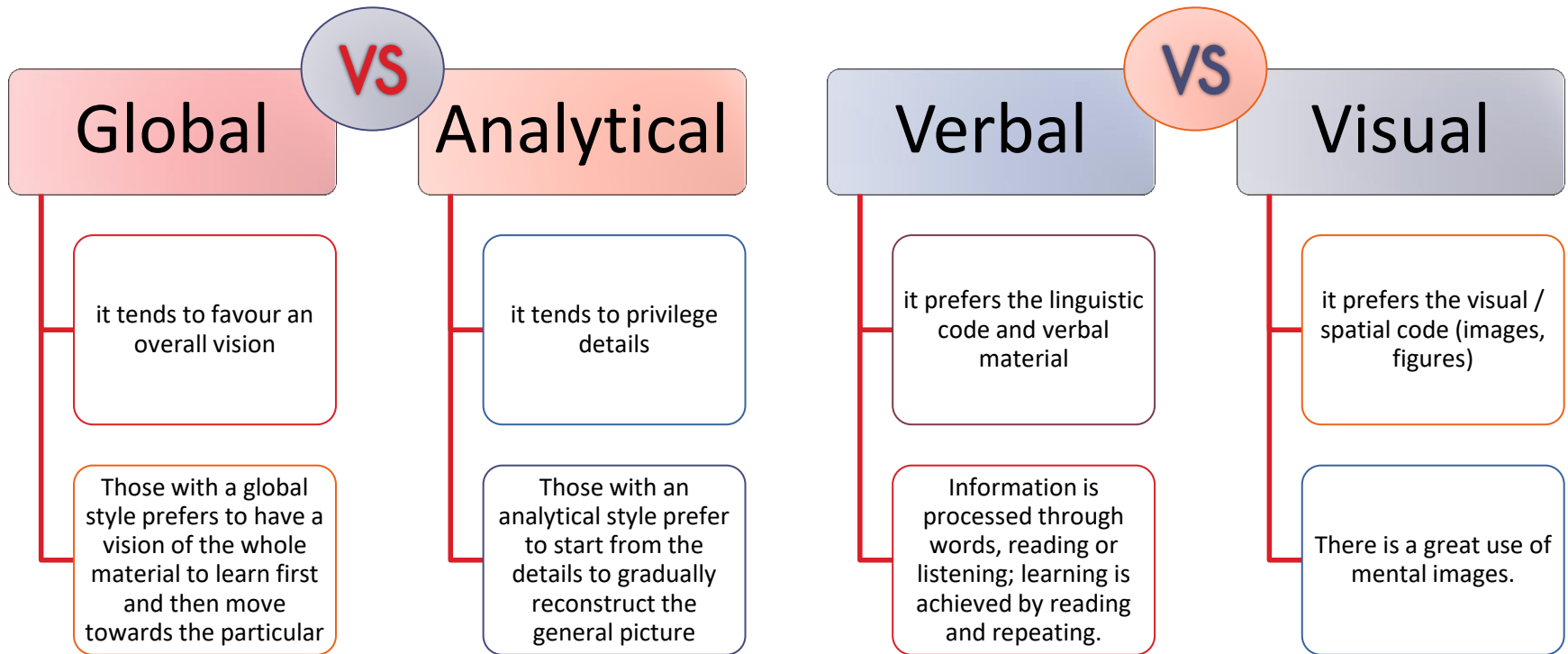
The effectiveness of strategic study depends on the task, the objectives, the proposed materials, but above all on the characteristics of the students.

To obtain the maximum benefit, study strategies compatible with our **cognitive style** should be used.

Cognitive styles are subjective preferential methods of processing information, which remain over time and generalize to different tasks.

Cognitive styles help determine success or failure in tasks related to school learning.

# Cognitive styles



# Recommended strategies

## VERBAL STYLE

- take notes in the classroom and re-read them at home;
- summarize in writing what has been read;
- take note of the instructions for homework and lessons;
- accompany graphs and diagrams with written explanations;
- list in writing what you want to remember;
- have written instructions or explanations.

## VISUAL STYLE

- use drawings, multimedia maps to insert key words, images, graphics, etc., to remember the terms and summarize the material to be studied;
- use colour to highlight keywords and (in maps) to differentiate the different contents and hierarchical levels;
- take advantage of textual indexes before reading a book chapter;
- create mental images of what is listened to or read: it will be useful for retrieving content.

# Cognitive styles

The **field dependence / independence** refers to the extent to which an individual engaged in a task is influenced by the context. It is indicative of how the individual directs and maintains the attention selectively on relevant stimuli, inhibiting the perception of irrelevant or distracting ones.

VS

## Field dependent style

it highlights the links between the topic and the context in which the topic is inserted.

Those who adopt it:

prefer  
rehearsal  
strategies

place emphasis  
on the  
relationships  
between  
concepts

show  
difficulties in  
isolating  
figures from  
contexts

prefer  
cooperative  
learning

## Field independent style

it isolates the single topics from the rest.

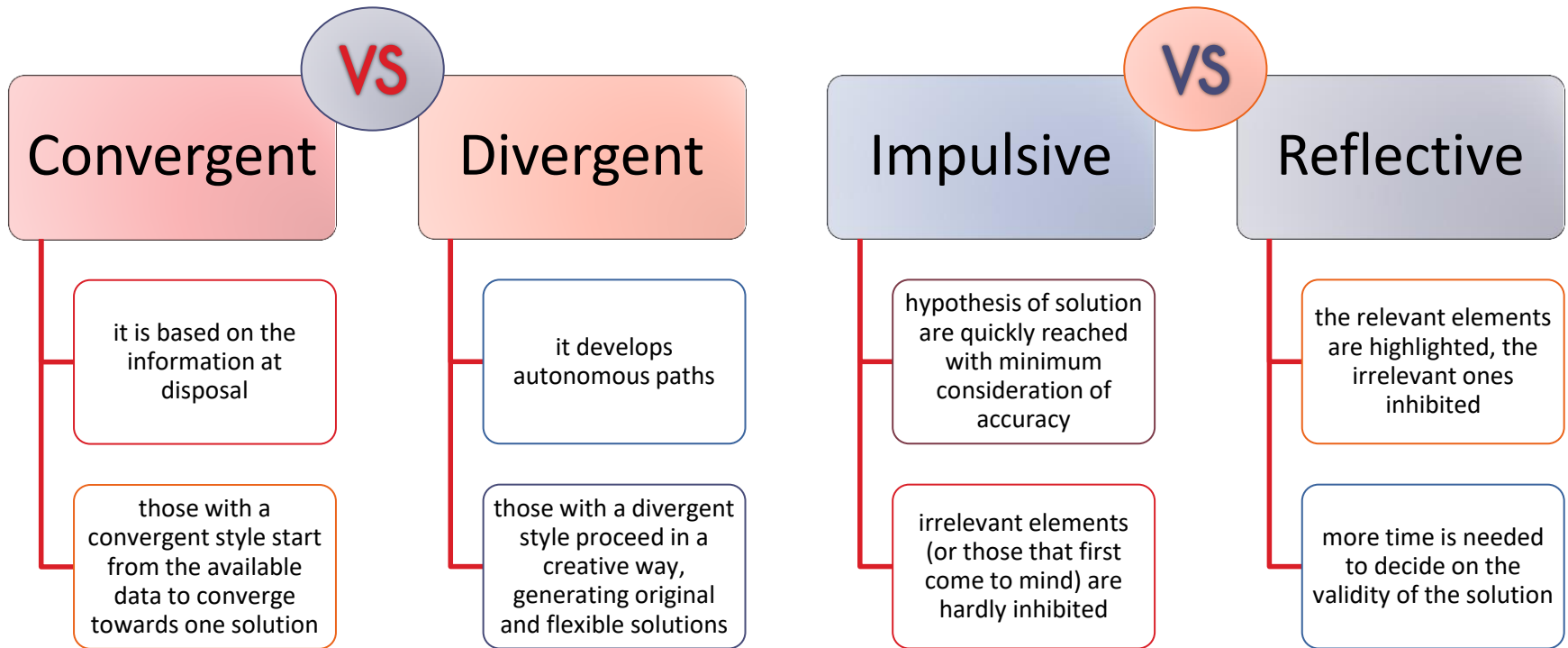
Those who adopt it:

are skilled in  
reworking  
strategies

appear flexible  
in learning

are more at  
ease with  
individual  
study

# Cognitive styles



# Cognitive styles

The **systematic / intuitive style** concerns the way in which individuals arrive at the identification of a rule or classification criterion. Both can lead to satisfactory solutions, however, while the intuitive, if the correct hypothesis is formulated immediately, can be extremely rapid, the systematic takes more time and, at least theoretically, reaches a correct solution.

VS

## Systematic style

it leads to the identification of a rule or a classification criterion step by step, taking into consideration all the variables involved and analysing them one at a time.

Those who adopt it:

posit a significant load in memory

run the risk of dwelling only on the details

## Intuitive style

it formulates hypotheses and tries to confirm or refute them on the basis of examples.

Those who adopt it:

need the ability to remember “stored” information to construct a new hypothesis

run the risk of limiting themselves to the first hypothesis formulated, without seeking further confirmation



# Tips 4 teachers

Pupils learn better and more easily when they adopt their "spontaneous" style.



Study performance tends to be better if the task can be performed with a procedure suited to the preferred style.



Using the preferred style is generally motivating and leads to greater and more effective learning strategies



However, it is important to also know the alternative style because some subjects lend themselves more to the use of a methodology that maybe is not congenial to us... this requires a bit of commitment.



Only by knowing also what is not "spontaneous" for us we can choose the best strategy to face the study.



So: help your pupils dedicating time to learn about their own cognitive and learning styles, trying to strengthen those information processing methods that are more difficult for them!

# Want to know more?

Check this assessment tool on our website!

<http://www.till.org.uk/wp-content/uploads/2019/03/Teaching-style-Inventory-Mariani-2010.pdf>