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Don’t Blame Your Child

Teach Him How To Learn

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What Are Cognitive Skills?

- Cognitive skills are the mental tools that students will use to understand lessons, follow instructions and to stay focused.
- Strong cognitive skills lead to more efficient learning, deeper understanding, better retention and problem-solving.
- When these skills are weak, students may find learning a lot harder than they need to be, but the good news it that these skills can be improved!

Cognitive Skills in Learning

1. Attention

- **Focused Attention**: Staying on task while ignoring distractions
- **Sustained Attention:** being able to maintain focus for a longer period
- **Divided Attention**: Ability to process more than one piece of information or work on 2 or more tasks at one time

Cognitive Skills in Learning

1. **Working Memory:** Ability to retain information while using or processing it

1. **Long-term memory :** Ability to store and recall information for later use

1. **Processing Speed**: The rate it takes to perceive and process information, and then formulate a response

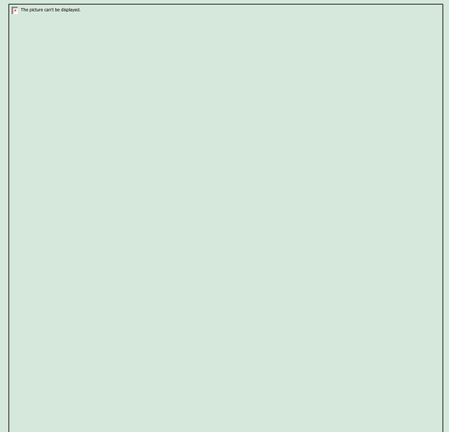
1. **Logical Reasoning:** The process of coming to a conclusion using a rational and systematic series of steps (e.g. ability to prioritise, plan, argue an opinion)

Signs of Poor Attention

- Easily distracted by noise or other classmates
- Have trouble focusing on tasks
- Difficulty reading long passages or text
- Appears to be daydreaming or not listening
- Difficulty managing their time and keeping their materials neat and organised

Signs of Poor Working Memory

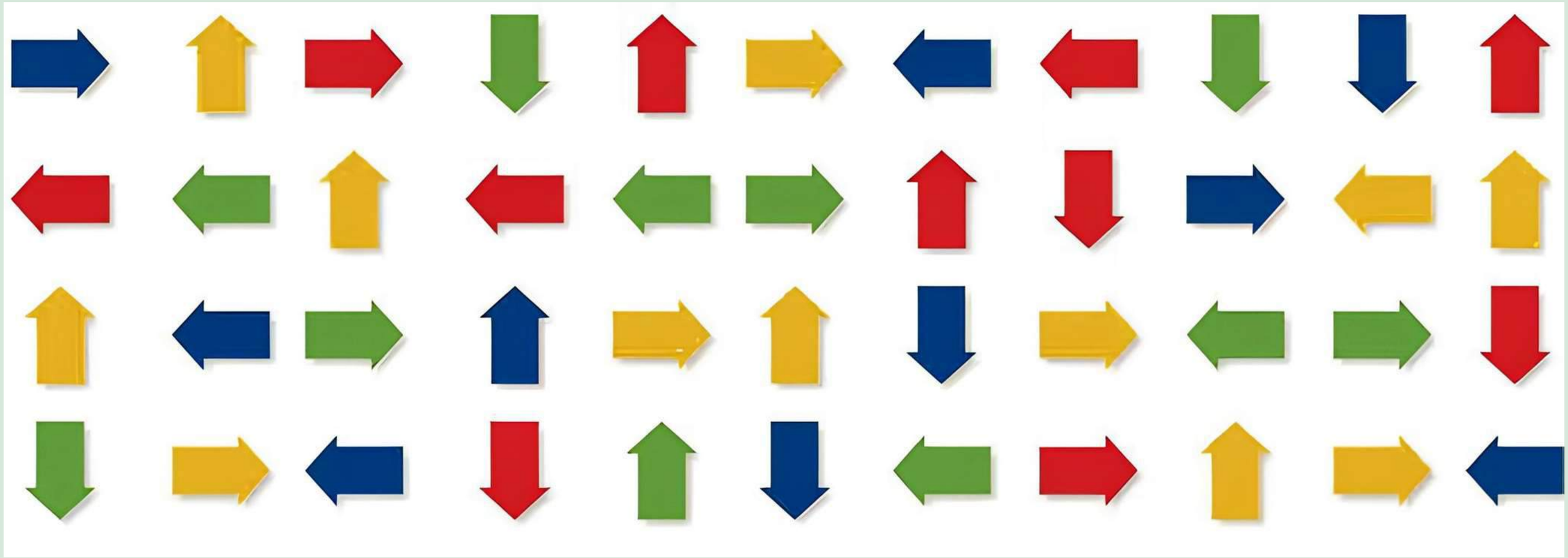
- Read a word and forget it a few lines later
- Have trouble focusing on tasks
- Difficulty reading long passages or text
- Appears to be daydreaming or not listening
- Difficulty managing their time and keeping their materials neat and organised



Boosting Cognitive Skills

- There are many games that boost cognitive skills.
- Matching games help children work on their working memory and visual memory. You can even give them a magazine page and ask them circle all of the word ’the’.
- Simple card games like Go Fish and Uno can improve their working memory and attention as they have to remember what cards they have, and which cards others have played.
- Puzzle games like Where’s Waldo also helps improve visual processing and attention span.

Follow the Arrows



Different Learning Styles

Traditional Learning Styles

1. Visual: learn better when information is in graphic form
1. Auditory: learn better when information is heard or spoken
1. Read/Write: learn information when it is in words, whether by writing it down or reading it
1. Kinesthetic: learn better by doing, prefer tactile, hands-on experiences

Other Types of Learning Styles

- Logical/analytical: learners who depend on logical reasoning and analytical skills (e.g. learn better by looking for connections, causes, patterns and outcomes)
- Social: prefer learning that involves peer participation (e.g. learn by interacting, collaborating and communicating with others)
- Solitary: prefer independent work and studying alone
- Nature: learners who prefer outdoor learning and concepts or examples related to nature

Important Considerations

- Students do not necessarily fall into one category, and many can shift between different learning styles depending on contexts
- Learning styles are not fixed. They can change over time as people’s experiences can cause them to change the way they learn
- Though learning styles can be a good indicator of students’ strengths or preferences, they are not an indicator of what a student is or is not capable of. It should not be used to determine subject choices, majors or professions.

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Studying and Learning Techniques

Which Techniques Do Students Most Commonly Use?

- Highlighting and rereading texts are the most used techniques by students

- BUT research shows that these techniques were the least effective.

What is Elaborative Interrogation?

- It involves prompting students to ask questions about how and why things work. (e.g. Why is this true? What caused this?)
- By getting students to explain and describe their ideas with more details, they learn to connect the information to their own experiences, memories and other parts of their daily life.
- This is a method that strengthens their understanding and retention of the information they are trying to learn.

How To Do It?

1. Make a list of all the main points or ideas that need to be learnt

1. Go down the list and ask questions about how things work and why (Use 5Ws1H)

1. Try to find the answers in class materials (e.g. worksheets, textbooks) or discuss with classmates.

1. While answering these questions, try to make connections between different ideas (e.g. How are they similar/different?).

1. Think about how what is being studied can be applied to their own life experiences

Example From a History Lesson

Imagine you're studying **the attack on Pearl Harbor** during **World War II.**

- *You could ask how did this attack happen?*

  On December 7, 1941, the Imperial Japanese Navy attacked the United States Naval Base at Pearl Harbor. The attack included Japanese fighter planes, bombers, and torpedo planes.

- *Why did this happen?*

  The Japanese intended to destroy the United States' Pacific Fleet so that it could not interfere with Japanese operations.

Example From a History Lesson

- *What was the result of this historic event?*

  Japanese casualties were light, while they damaged eight U.S. Navy battleships. The Arizona was among those that the Japanese sunk and was not raised from the shallow water. U.S. aircrafts were also destroyed, and 2,403 Americans were killed (1,178 were injured).

- *Why is this event important?*

  The day after the attack, Roosevelt delivered his Infamy Speech, the United States formally declared war on Japan, and Japanese-Americans were then relocated to internment camps.

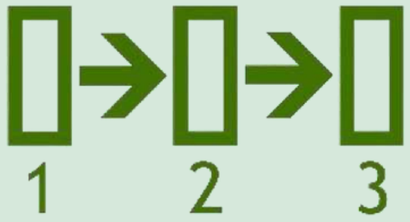
Practice Testing

- Practice testing is a separate learning activity from summative assessments like tests or examinations

- Although students dislike tests, research shows that testing improves learning, and practice testing is important for learning and retention.

Distributed Practice

- Distributed practice is the exact opposite of cramming.
- Instead of studying for five hours straight the day before a test, distributed practice means taking that five hours and spreading it out over a longer period. (e.g. 1-hour sessions spread out over two weeks.)
- Spreading out learning and studying leads to better retention of information in the long term.



Spaced Practice
[Distributed Practice]

How To Do It?

1. Get students to plan their revision early for exams. They should try to set aside a little bit of time every day or a few times a week.
1. Review information from each class, but not immediately after the lesson.
1. First, review the most recently learned information but also, make sure to go back and revise important older information (eg. something taught a month or two weeks ago)

**It is important to use important learning strategies like summarization, elaborative interrogation or practice testing instead of just reading their notes or textbooks.*

Distributed Practice Schedule

Name: Jane Subject: Geography

	Topic	1st Review	2nd Review	3rd Review	4th Review	Final Review
1	Coasts					
2	Global Tourism					
3	Tectonic Hazards					
4	Weather & Changing Climate					
5	Food Resources					
6	Health & Diseases					
7						
8						

Interleaved Practice

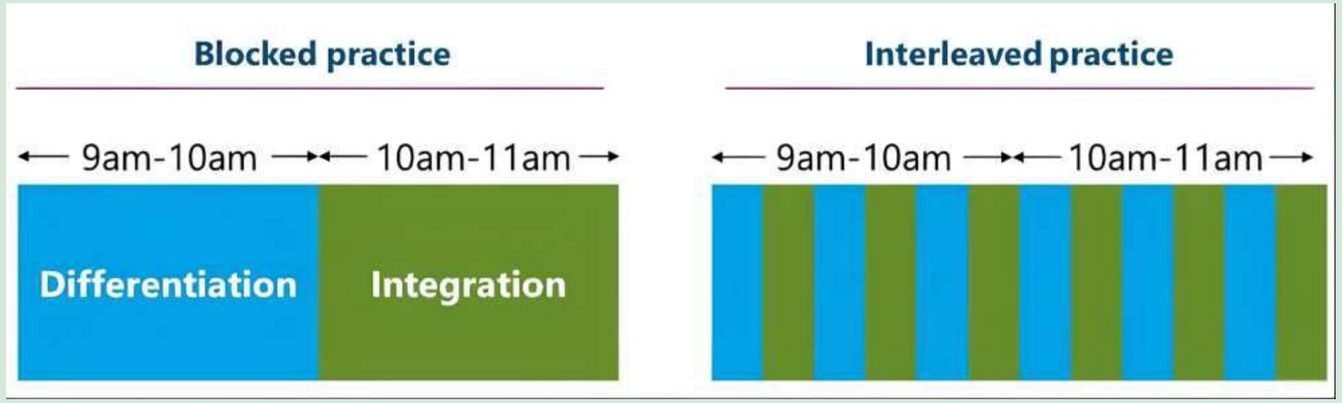
- Interleaving is a technique in which students jumble up their review of similar or related topics, instead of focusing on just one topic at one time. (e.g. If a student is learning about the causes of global warming, they can also study about the different sources of energy.)
- Students learn to develop problem-solving and categorization skills.
- Interleaving also leads to better understanding of different topics and results in better long-term retention of information.

How To Do Interleaved Practice

1. Switch between different topics during a study session. Don’t study one topic for too long.
1. Go back and review different topics to improve your understanding.

1. Try to make links or connections between different concepts as you switch between them (if possible).

1. Make sure you fully understand the topic or concept before moving on to the next one.



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Time Management During Examinations

Time Management

- Know the exact duration of the examination and the format of the paper (e.g. the sections and types of questions that will be asked)
- Strategically divide the time (e.g. allocate time to each section based on the assigned number of marks OR allocate time based on the difficulty of each section)
- Always ensure there is extra time to check or to re-attempt challenging questions

Additional Tips

- Complete the easiest questions first – getting some questions done well at the start can help boost students' confidence and reduce some of their anxiety
- Be aware of topics and sections they may struggle with, and allocate more time for these questions
- Practice the ability of eliminating answers! This can save students a lot of time as they minimize the number of options they have to choose from.
- Lastly, be prepared for unexpected interruptions, distractions or outside pressures (e.g. loud noises from outside)