

Rosenshine's Principles of Instruction in Action

Helen Winn and Naomi Shenton

Context - where we were

- Making assumptions about students' knowledge
- Ignoring the gaps
- Skills-based rather than knowledge-based
- Finding out information in a variety of 'interesting' ways
- Little or no acknowledgement of misconceptions

Paradigm Trust's lesson rubric

High expectations are conveyed and constantly reinforced for all students with consistent use of 'hands-up'.

Lessons begin with a high value 'do now' activity, followed by:

- I explain
- The students discuss ('talk to your partner')
- I demonstrate what I want them to do
- I use visual prompts and 'cold-call' questioning to support the students to understand
- I show the students what the expected outcome looks like
- I clearly demonstrate and model each teaching point
- The students try to do it
- The students practise
- I use 'circulate, check and react' to keep an overview of the class and to spot and address misconceptions
- I model again
- The students practise again by completing a 'check out' activity
- During the plenary I assess progress, including the students' ability to apply their learning in a new context

Talk to your partner (TYP)

Discussion fundamentals

- Speaking clearly
- Listening to each other
- Making eye contact
- Building on each other's ideas
- Using one another's names



The habits of discussion

Follow-on

- Encourage the students to track the speaker
- Use cold-call questioning to reinforce peer to peer listening
- Use circulate, check and react (CCR) to plan your cold-call questioning

Using frames

- I agree with because
- I disagree with because
- I understand why you would say that, but
- I agree with your point, but on the other hand
- That makes sense because

Circulate, check and react (CCR)

- You explain
- The students discuss
- You demonstrate what you want them to do
- You use visual prompts to support students to understand
- You show students what the expected outcome looks like
- You clearly demonstrate and model each teaching point

The students practise

Circulate and check

You quickly circulate the whole classroom and quickly check the work of every student, without intervening at this stage

React

You allow the students to consolidate or you move the students on

All students understand?

yes

no

React

You intervene with the students who do not understand and you move the students on who do understand

Some students understand?

yes

no

React

Stop the whole class and address the misunderstanding/misconception

Evidence-based practice

The sources of Rosenshine's principles of instruction:

- a) Research in cognitive science
- b) Research on classroom practices of master teachers
- c) Research on cognitive supports to help students learn complex tasks

THE PRINCIPLES OF INSTRUCTION

TAKEN FROM THE INTERNATIONAL ACADEMY OF EDUCATION

This poster is from the work of Barak Rosenshine who based these ten principles of instruction and suggested classroom practices on:

- research on how the brain acquires and uses new information
- research on the classroom practices of those teachers whose students show the highest gains
- findings from studies that taught learning strategies to students.

HOW TO
use this poster

01 DAILY REVIEW



Daily review is an important component of instruction. It helps strengthen the connections of the material learned. Activates local (near) working memory for problem solving and creating.

02 NEW MATERIAL IN SMALL STEPS



Our working memory is small, only holding a few bits of information at once. Build the material — present new material in small steps and proceed only when first steps are mastered.

03 ASK QUESTIONS



The most successful teachers spend more than half the class time asking, demonstrating, and asking questions. Questions allow the teacher to determine how well the material is learned.

04 PROVIDE MODELS



Students need cognitive support to help them learn how to solve problems. Modeling worked examples and teacher thinking and local help during the specific steps involved.

05 GUIDE STUDENT PRACTICE



Students need additional time to high-pace, elaborate and summarize new material in order to store it in their long-term memory. More successful teachers built in more time for this.

06 CHECK STUDENT UNDERSTANDING



Less successful teachers merely ask, "Are there any questions?" No questions are asked to mean no problems. False. By contrast, more successful teachers check on all students.

07 OBTAIN HIGH SUCCESS RATE



A success rate of around 90% has been found to be optimal, showing students are learning and also being challenged. Enter teachers' might in small steps followed by practice.

08 SCAFFOLDS FOR DIFFICULT TASKS



Scaffolds are temporary supports to assist learning. They can include modeling, teacher thinking aloud, cue cards and checklists. Scaffolds are part of a positive apprenticeship.

09 INDEPENDENT PRACTICE



Independent practice produces "overlearning" — a necessary process for new material to be recalled automatically. This avoids an overloading of students' working memory.

10 WEEKLY & MONTHLY REVIEW



The effort involved in recalling recently-learned material embeds it in long-term memory. And the more this happens, the easier it is to connect new material to each prior knowledge.



Ipswich Academy
Part of Paradigm Trust

Marginal gains

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HOW
LearningWorksUSA.com

Do-Now
Exit-Ticket

No-Opt-Out
Cold-Call
Wait-Time
Right is Right
Stretch-It

At-Bats
Pepper
Break-It-Down
Responsive-
Teaching
TTYP

At-Bats
Pepper
No-Opt-Out

At-Bats
TTYP
Shed-loads-of-
practice (SLOP)

01 DAILY REVIEW



Daily review is an important component of instruction. It helps strengthen the connections of the material learned. Automatic recall frees working memory for problem solving and creativity.

03 ASK QUESTIONS



The most successful teachers spend more than half the class time lecturing, demonstrating and asking questions. Questions allow the teacher to determine how well the material is learned.

05 GUIDE STUDENT PRACTICE



Students need additional time to rephrase, elaborate and summarize new material in order to store it in their long-term memory. More successful teachers built in more time for this.

07 OBTAIN HIGH SUCCESS RATE



A success rate of around 90% has been found to be optimal, showing students are learning and also being challenged. Better teachers taught in small steps followed by practice.

09 INDEPENDENT PRACTICE



Independent practice produces 'overlearning' — a necessary process for new material to be recalled automatically. This assures no overloading of students' working memory.

02 NEW MATERIAL IN SMALL STEPS



Our working memory is small, only handling a few bits of information at once. Avoid too much load — present new material in small steps and proceed only when first steps are mastered.

04 PROVIDE MODELS



Students need cognitive support to help them learn how to solve problems. Modeling, worked examples and teacher thinking out loud help clarify the specific steps involved.

06 CHECK STUDENT UNDERSTANDING



Less successful teachers merely ask 'Are there any questions?' No questions are taken to mean no problems. False. By contrast, more successful teachers check on all students.

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10 WEEKLY & MONTHLY REVIEW



The effort involved in recalling recently-learned material embeds it in long-term memory. And the more this happens, the easier it is to connect new material to such prior knowledge.

Name-the-Steps
I-do/we-do/you-do

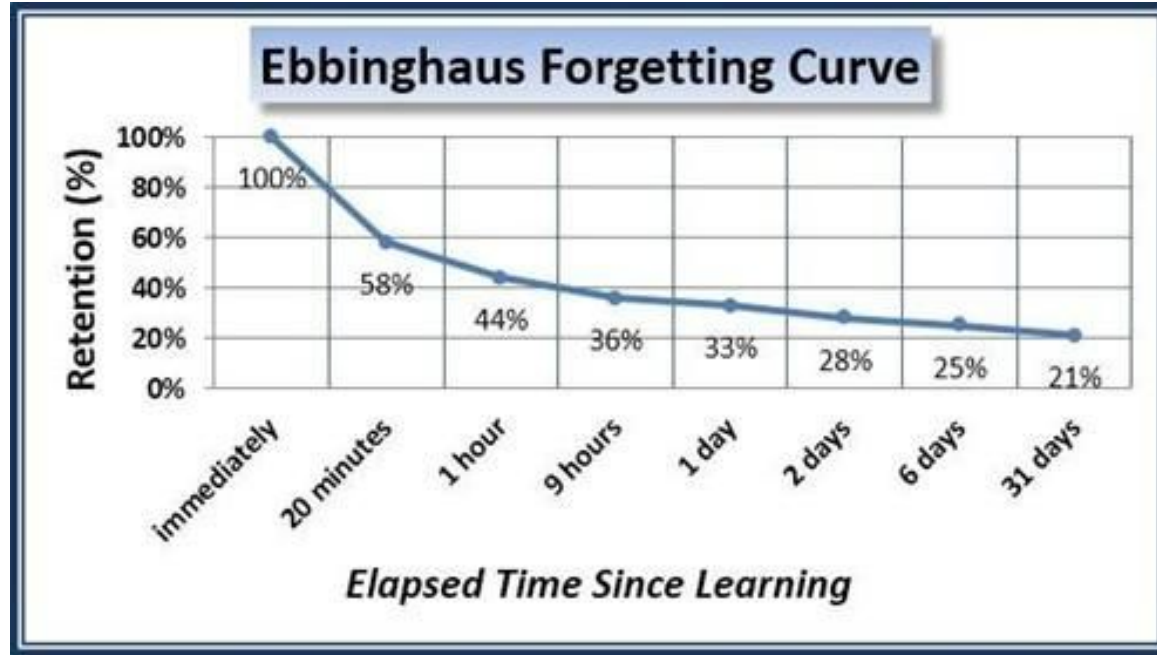
I-do/we-do/you-do
Examples and
non-examples

Circulate-Check-
Respond (CCR)
Reject-Self-Report
Do-Now
Exit-Ticket
At-Bats

Break-it-Down
Name-the-Steps
Completion-
Problems

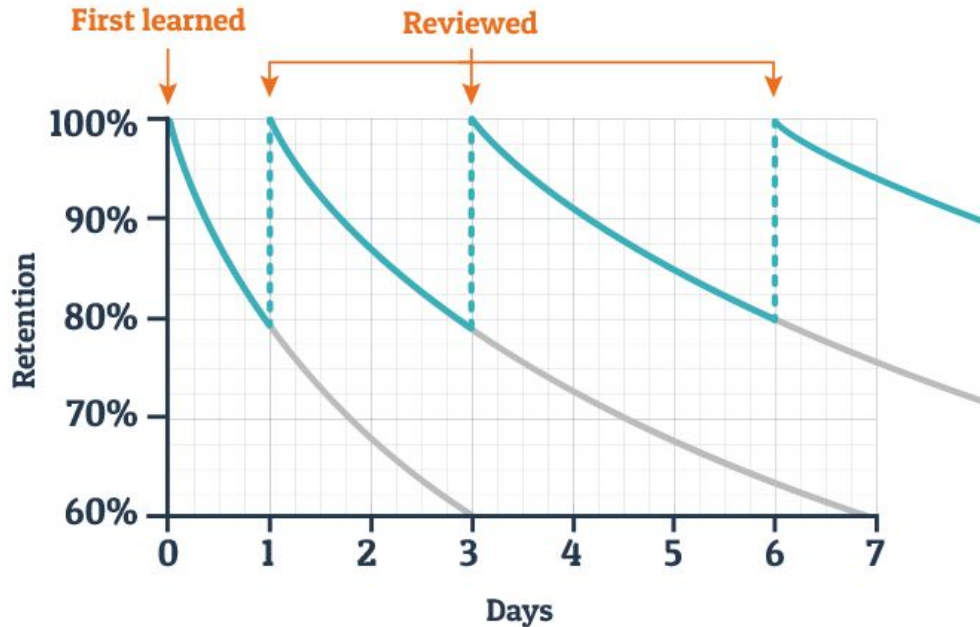
Do-Now
Exit-Ticket
At-Bats
Pepper

1. & 10. Review



1. & 10. Review

Typical Forgetting Curve for Newly Learned Information



Do now tasks

Knowledge organisers


Regular low stakes testing



Rosenshine in our CPD

- Launch session
- Embedded in ITT and NQT programme
- Teaching toolkit briefings
- Subject CPD - transfer
- Lesson observations and coaching



		Nature of observation	
Teacher		Subject	
Class		Period	
Observer		Date	
Previous feedback			
Strengths/response to feedback			
Immediate action to be taken within one week (one action only - see reverse for evidence based feedback)			
Duration and nature of feedback (e.g. coaching, roleplay...)			

Questions



Further reading

Principles of Instruction

<https://www.aft.org/sites/default/files/periodicals/Rosenshine.pdf>

Retrieval practice

<http://www.learningscientists.org/retrieval-practice/>

ipswichacademy.paradigmtrust.org