



Grange Primary Academy

The best in everyone™

Part of United Learning

Rosenshine's Principles of Instruction

At Grange Primary Academy our teaching philosophy is underpinned by the research of Barak Rosenshine and his Principles of Instruction.

Who was Barak Rosenshine?

Barak Rosenshine was born on August 13th 1930 in Chicago, Illinois. He was a high school history teacher originally but stopped actively teaching in 1963 to gain a PhD in Education at Stanford University. After completing his PhD he taught at Temple University for 2 years before moving to the University of Illinois. It is at the University of Illinois that he taught educational psychology and published many papers, mainly focusing on teacher performance, direct instruction and strategies based on cognitive science. Whilst at Illinois, Rosenshine first proposed his instructional teaching functions, on which he based his later work on the principles of instruction.

Rosenshine's 10 Principles of Instruction.

In 2012, Rosenshine published a further, revised edition of earlier papers; "[*Principles of Instruction: Research-based Strategies that Teachers Should Know*](#)".

In this paper, Rosenshine had, for the sake of clarity simplified the list of principles, from a rather ominous 17 down to a more manageable and less intimidating 10.

- 1. Begin the lesson with a review of previous learning.**

2. **Present new material in small steps.**
3. **Ask a large number of questions (and to all students).**
4. **Provide models and worked examples.**
5. **Practise using the new material.**
6. **Check for understanding frequently and correct errors.**
7. **Obtain a high success rate.**
8. **Provide scaffolds for difficult tasks.**
9. **Independent practice.**
10. **Monthly and weekly reviews**

1 Begin the lesson with a review of previous learning.

Rosenshine suggests investing 5-8 minutes to review previous learning. This can be in the form of [questioning techniques](#) to check understanding and to uncover and challenge misconceptions, peer or self-marking work and correcting mistakes. This will strengthen understanding and the connections between ideas.

2 Present new material in small steps.

Presenting new information in small, bite-sized chunks increases the progress made by the students. Introducing too much at once will see progress rates fall as they can only process so much at one time. This reduction in [cognitive load](#) allows [metacognition](#) to take place (it allows them to think about how they are thinking about the task).

#3 Ask a large number of questions (and to all students).

Questions are a teacher's most powerful tool, they can highlight misconceptions, keep a lesson flowing and challenge students to think deeper into a subject. The greatest value of questioning though is that they force students to [practice retrieval](#), this strengthens and deepens memory.

4 Provide models and worked examples.

Delivering new information to students by linking it to something or some process they are familiar with allows students to gain an understanding quicker, it also gives them deeper retention. This is especially true of more conceptual ideas.

In Science, we may explain the flow of electrons in a circuit by using the model of the water in a “lazy river”. The water being the flow of electrons, the pumps providing the voltage (power) and the people in the water providing resistance.

5 Practise using the new material.

Practice makes perfect right? Rosenshine postulates that this is true of physical, vocal and mental practice. He suggests that successful teachers allow more time for guidance, questioning and repetition of processes. Actually, in teaching, I prefer to use the phrase “Practice makes Progress”.

6 Check for understanding frequently and correct errors.

Regular asking of direct questions (rather than “does anyone have any questions?”) allows teachers to check a classes/student’s understanding and catching misconceptions, therefore informing the teacher whether any parts of the topic need reteaching.

7 Obtain a high success rate.

[Teaching for mastery](#) ensures all students in a class are ready to move on to the next stage in the topic, thus preventing students from taking misunderstanding into their future learning. From his research, Rosenshine found that a class that the optimal success rate is an 80% understanding. This shows that not only have the students learnt the material but also

were challenged in doing so. Any higher and the work may not have been challenging enough and vice versa.

8 Provide scaffolds for difficult tasks.

When introducing a more difficult lesson, Rosenshine suggests employing [Vygotskian scaffolding](#). Providing students with a framework that more easily allows them to make progress.

The scaffolds can then be gradually removed as their competency grows. Examples of scaffolds can include; checklists, cue cards or writing frames. Teachers can also anticipate commonly made errors and build tools into the scaffold tasks that reduce the chances of students making the same mistakes.

9 Independent practice.

Following scaffolded tasks, students should be competent in the task and therefore can practice the task independently. This repetition of the task will promote a deeper fluency, Rosenshine called this “overlearning”.

10 Monthly and weekly reviews.

An extension of the first principle, monthly and weekly reviews of previous learning aids recall of information and processes

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.

02 NEW MATERIAL IN SMALL STEPS



Our working memory is small, only handling a few bits of information at once. Avoid its overload — 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 lecturing, 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. Modelling, worked examples and teacher thinking out loud help clarify the specific steps involved.

05 GUIDE STUDENT PRACTICE



Students need additional time to rephrase, elaborate and summarise 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 taken to mean no problems. False. By contrast, more successful teachers check on all students.

07 OBTAIN HIGH SUCCESS RATE



A success rate of around 80% has been found to be optimal, showing students are learning and also being challenged. Better teachers taught in small steps followed by practice.

08 SCAFFOLDS FOR DIFFICULT TASKS



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

09 INDEPENDENT PRACTICE



Independent practice produces 'overlearning' — a necessary process for new material to be recalled automatically. This ensures no 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 such prior knowledge.

If teachers are going to improve their practice, then it is essential for the ideas they are basing their thinking around to be formulated on a sound plan.

Tom Sherrington: Rosenshine's Principles in Action.

Ex Physics teacher, author and education consultant, Tom Sherrington has become the go-to expert on Rosenshine's Principles.

"MY ADMIRATION FOR ROSENSHINE IS LARGELY INFORMED BY MY EXPERIENCE WORKING WITH TEACHERS IN VARIOUS SCHOOLS AND COLLEGES WHERE I'VE BEEN TRYING TO ENGAGE PEOPLE WITH RESEARCH IN ORDER TO SUPPORT THEM TO IMPROVE THEIR PRACTICE. FOR ME, IT IS THE BEST, MOST CLEAR AND COMPREHENSIVE GUIDE TO EVIDENCE-INFORMED TEACHING THERE IS." TOM SHERRINGTON. TEACHERHEAD.COM

Tom Sherrington's Four Strands.

In Tom's analysis of Rosenshine's 10 Principles of instruction, he proposes grouping them into 4 strands that combine connected principles. Sherrington then orders the four strands into a workflow of a lesson.

Strand 1: Sequencing Concepts and Modelling.

.....○ SEQUENCING CONCEPTS & MODELLING ○.....

2 Present new material using small steps

8 Provide scaffolds for difficult tasks



4 Provide models



Strand 2: Questioning.

QUESTIONING

3 Ask questions

6 Check for student understanding



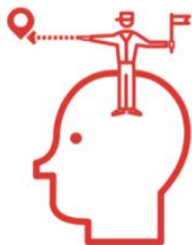
Strand 3: Reviewing Material.

STAGES OF PRACTICE

7 Obtain a high success rate

5 Guide student practice

9 Independent practice



Strand 4: Stages of Practice.

REVIEWING MATERIAL

① Daily review

⑩ Weekly and monthly review



Sherrington is quick to point out that Rosenshine's work is NOT a checklist that needs to be included in every lesson, but more as a framework that encourages a [teacher's professional development](#).

Conclusion.

Isn't it Just Common Sense?

This seems to be the most common response from teachers after reading Rosenshine's paper for the first time.

Well, yes and no.

That's the beauty of it.

As a school our initial response to Rosenshine was "I already know that I do it already"

But...

When we thought about our teaching, we saw that some of us hadn't really thought about our methods for a while, so we started mapping out a few lessons with Rosenshine's work in mind

It may seem like the things we do every day anyway but there is more to it than that. To us, it provides familiar ideas but presents them in a way that allows us to pick and choose the best principles to teach the differing ideas in lessons

Since we have been using Rosenshine's principles, we have found that less teaching time is wasted, lessons have become more efficient and children have been making more progress.

But, just remember, it's not a checklist!

We like to see Rosenshine as a toolbox, we select the right tool for the job resulting in the job being completed more efficiently.

You wouldn't eat soup with a fork, would you? You could, but it would take ages!

Please read [Rosenshine's Principles of instruction](#) paper. Tom Sherrington's book is

available from the school office.

