Poseidon Primary
Creating Opportunities Together

# Instructional Coaching Playbook

## Small Steps. Big Impact.



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# Instructional Strategies Playbook

## INSTRUCTIONAL COACHING CHECKLIST

| COACHING BEHAVIOUR | OBSERVATION / NOTES |
|---|---|
| **IDENTIFY** | |
| Teacher gets a clear picture of current reality by watching a video of their lesson or by reviewing observation data. (Video is best.) | |
| Coach asks the identify questions with the teacher to identify a goal. | |
| Teacher identifies a student-focused goal. | |
| Teacher identifies a teaching strategy to use to hit the goal. | |
| **LEARN** | |
| Coach shares a checklist for the chosen teaching strategy. | |
| Coach prompts the teacher to modify the practice if he or she wishes. | |
| Teacher chooses an approach to modeling that he or she would like to observe and identifies a time to watch modeling. | |
| Coach provides modeling in one or more formats. | |
| Teacher sets a time to implement the practice. | |
| **IMPROVE** | |
| Teacher implements the practice. | |
| Data is gathered (by teacher or coach, in class or while viewing video) on student progress toward the goal. | |
| Data is gathered (by teacher or coach, in class or while viewing video) on teacher's implementation of the practice (usually on the previously viewed checklist). | |
| Coach and teacher meet to discuss implementation and progress toward the goal. | |
| Teacher makes modifications until the goal is met. | |

# Instructional Strategies Playbook

## Identifying Questions

1. On a scale of 1-10, with 1 being the worst lesson you've taught and 10 being your ideal, how close was that lesson to your ideal?

2. What would you have to change to move the lesson closer to a 10?

3. What would you see your students doing differently if your class was a 10?

4. How could we measure that change?

5. If you hit that goal, would it really matter to you?

6. What teaching strategy would you like to try to achieve your goals?



# Instructional Strategies Playbook

## Peers Goal

So that the students ..... I will implement /develop / embed ..... strategies.

## Personal / Professional Goal

To develop the above strategies, I will .....



# Instructional Strategies Playbook

**iStar**

| | |
|---|---|
| Inform | Inspire |
| Show | Share |
| Try | Transfer |
| Apply | Action |
| Review | Revise. |




**I – Inform / Inspire – this is where our learning intentions are shared with the students through our lesson or unit 'WALT' (We Are Learning To…). Teachers may also inspire the students through a 'hook' to introduce the topic such as a short, animated clip, story or craft activity.**

The success criteria of the lesson is shared with the students through the **'WILF'** (What I Am Looking For..). The **'WILF'** is split into three levels: **All** students can:, **Most** students can: and **Some** students can:. This makes learning visible: it enables all students to access the learning at their own level and makes their next step clear.

**S – Show / Share – this is where the teacher will model a strategy and teach new learning. Sometimes, this may include the creation of or analysis of a WAGOLL (What A Good One Looks Like).**

**T – Try / Transfer – the students will have a 'try' at the activity in groups, pairs or individually whilst the teacher supports and scaffolds their learning.**

**A – Apply / Action – Now the student will work on an activity which will allow them to apply their learning independently.**

The Try and Apply stages may be done over a series of lessons to help students gain mastery of the skills.

**R – Review / Revise – At key points during the lesson and at the end of the lesson the learning will be reviewed and reflected upon using the success criteria.**

# Instructional Strategies Playbook

**Below is an outline of the Fleming Model.**
**Lesson Format:**

- **I DO**
- **WE DO**
- **YOU DO**

I DO

- Teacher defines skill to be taught
- Teacher explains specific learning objectives at the start of each lesson.
- Teacher demonstrates skill
- Teacher clearly explains skill step by step
- Revision and reinforcement of skill

WE DO

- Practice skills as whole group
- Practice skills in smaller groups
- Activities that reinforce concepts and understanding of skill
- Teacher guides and scaffolds

YOU DO

- Individual activities
- Extension of activities
- Teacher monitors and provides individual feedback

Givens

There are six 'givens' (expectations/ assumptions) in the Fleming Model classroom:

1) Positive Relationships
2) High Expectations
3) Presentation
4) Correction
5) Display
6) Setting the Tone (upholding classroom order and rules/ requirements)

Four Pillars

The Model is underpinned by four elements:

1) Teacher accountable learning
2) Explicit instruction
3) Moving student knowledge from short to long term memory
4) Effective relationships between teachers and students

Imperatives for Engagement

The Model defines three critical components that must be established in order for students to feel engaged and motivated:

1) Student trusts and respects teacher
2) Student is able to work at their level
3) Students have friends at school

# Instructional Strategies Playbook

## Cognitive Load Theory

*Design learning that working memory can manage*




Working memory has limited capacity. Clear explanations, small steps, modelling and regular checking for understanding help students attend to the important new learning and connect it to prior knowledge.

### Eight practical considerations

| Instructional move | What it looks like |
|---|---|
| Small steps | Chunk explanations and teach one manageable element at a time. |
| Guide and scaffold | Use models, worked examples, prompts, checklists and concrete examples. |
| Connect prior knowledge | Explicitly revisit prerequisite knowledge before introducing more. |
| Check understanding | Identify misconceptions and provide timely corrective feedback. |
| Space and retrieve | Revisit learning over time so retrieval and fluency strengthen. |
| Structure for novices | Offer high guidance when students are new to content or skills. |
| Manage distractions | Use clear routines and limit competing auditory and visual information. |
| Sequence learning | Move deliberately from simple to complex tasks. |



# Instructional Strategies Playbook

## Rosenshine's Principles of Instruction

*Ten research-informed principles, grouped into four strands*




| Strand | Principles |
|---|---|
| Sequencing and modelling | Present new material in small steps; provide models; scaffold difficult tasks. |
| Questioning | Ask questions; check for student understanding. |
| Reviewing material | Daily review; weekly and monthly review. |
| Stages of practice | Guide student practice; aim for a high success rate; provide independent practice. |

## The complete set of ten principles

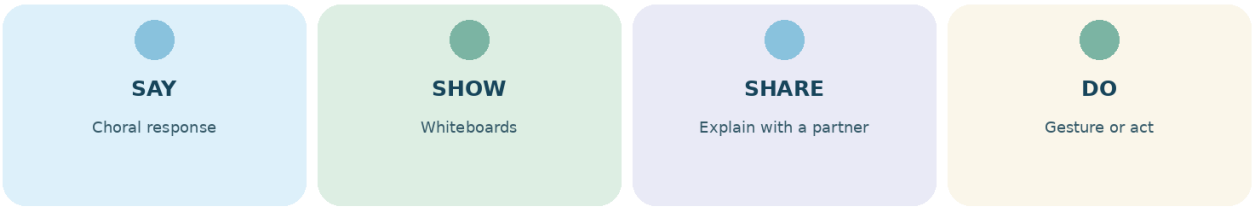
1. Begin a lesson with a short review of previous learning.
2. Present new material using small steps.
3. Ask a large number of questions.
4. Provide models.
5. Guide student practice.
6. Check for student understanding.
7. Obtain a high success rate.
8. Provide scaffolds for difficult tasks.
9. Require and monitor independent practice.
10. Engage students in weekly and monthly review.



# Instructional Strategies Playbook

## Active Participation

*Engagement norms and checking for understanding*




A well-ordered, positive classroom enables frequent responses from all students. Engagement norms make participation explicit and predictable rather than relying only on volunteers.

Checking for understanding is continuous: teachers use responses to adjust pace, clarify misconceptions and decide what to teach next.

## Engagement Norms



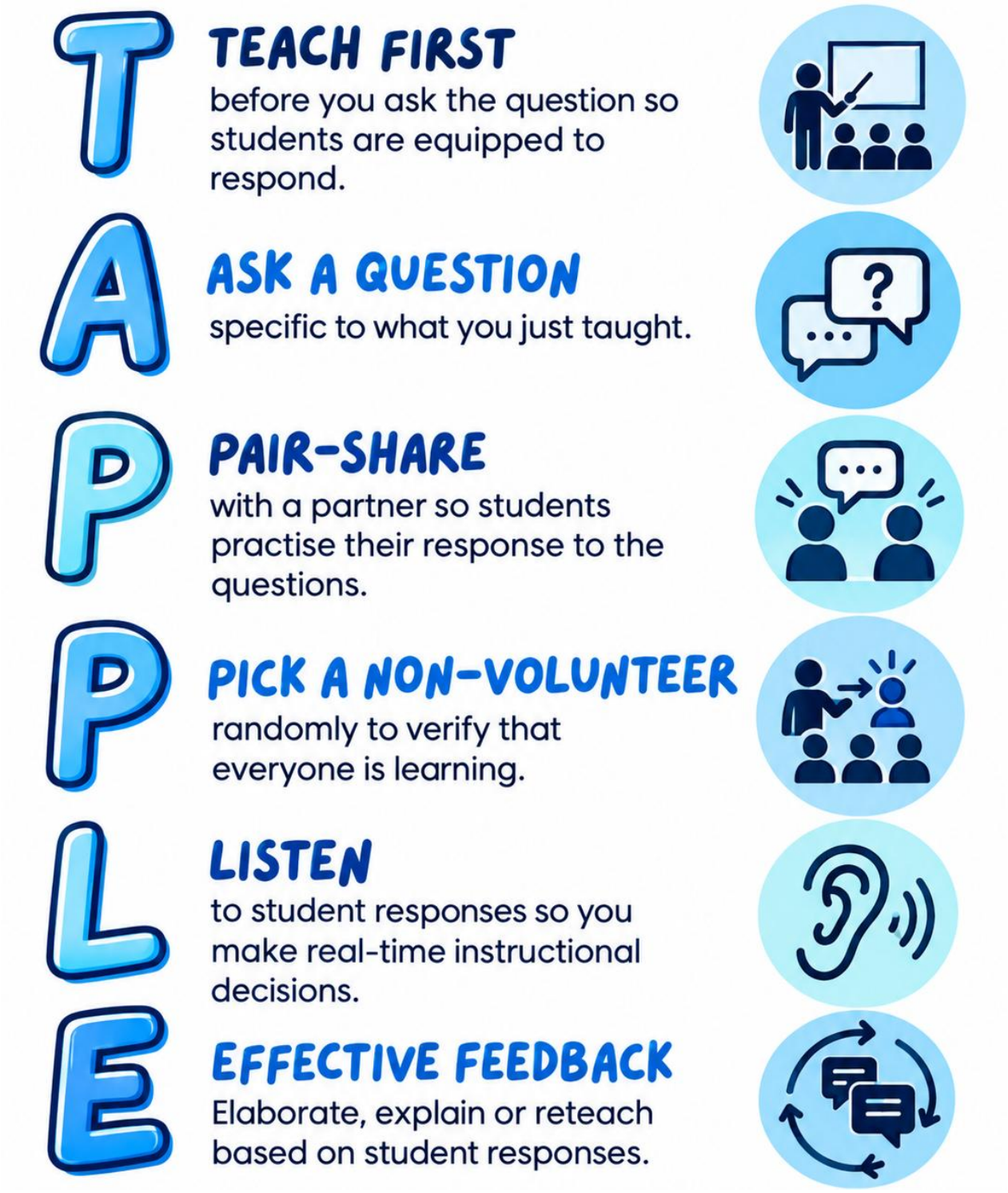

Explicitly teach the routine and model what it looks and sounds like. Keep cues consistent so every student can participate.

| Engagement norm | Purpose |
|---|---|
| **PRONOUNCE WITH ME** | Practise accurate vocabulary aloud. |
| **TRACK WITH ME** | Follow along with a shared text. |
| **READ WITH ME** | Read together to increase participation. |
| **GESTURE WITH ME** | Connect movement and meaning. |
| **PAIR SHARE** | Explain and rehearse an idea with a partner. |
| **ATTENTION SIGNAL** | Return attention swiftly and calmly. |
| **WHITEBOARDS** | Make every response visible. |
| **COMPLETE SENTENCES** | Build clear, precise oral responses. |

# Instructional Strategies Playbook

## Checking for Understanding

*TAPPLE: a repeatable response routine*




## Instructional coaching prompt

At which points in the lesson do all students need to think and respond? What evidence will show you whether the concept is secure?

# Instructional Strategies Playbook

## Daily Review

*Retrieve, rehearse and strengthen prior learning*




Daily review is a brisk, planned return to previously taught knowledge and skills. It is not the introduction of new teaching. Repeated retrieval builds fluency and reduces the demand on working memory.

| Why | What | How |
|---|---|---|
| **Retention** | Revisit core content through spaced practice. | Use a short review early in the lesson or block. |
| **Automaticity** | Rehearse essential facts, vocabulary and procedures. | Use rapid, varied and frequent responses. |
| **Flexible retrieval** | Mix related content and question types. | Combine recite, recall and apply activities. |

## Recite → Recall → Apply

| Recite | Recall | Apply |
|---|---|---|
| **Read or say information presented.** | Retrieve what is no longer shown. | Use the knowledge in a new problem or context. |

# Instructional Strategies Playbook

## Lesson Design

*Editable overview of the learning sequence*




| Stage | Focus |
|---|---|
| **Daily Review (DR)** | Quickly revisit previously taught content or skills. |
| **Learning Objective (LO)** | State the specific concept or skill students will learn. |
| **Success Criteria (SC)** | Clarify what successful learning looks like. |
| **Activate Prior Knowledge (APK)** | Retrieve prerequisite knowledge or relevant experiences. |
| **I Do (I)** | Explicitly model the skill, thinking and sequence of steps. |
| **We Do (W)** | Guide practice with frequent student responses and checks. |
| **You Do (Y)** | Provide monitored independent practice and differentiation. |
| **Relevance (REL)** | Connect the learning with academic or real-life purposes. |
| **Closure (CL)** | Use a brief task or response as evidence of learning. |

# Instructional Strategies Playbook

## Questioning and Feedback

*Use student responses to make teaching decisions*




Questioning allows teachers to gather evidence of learning while it occurs. Feedback clarifies misunderstandings, supports retrieval and helps students identify how to improve.

### Questions to plan for

- What is the most important idea every student should be able to explain?
- How will every student respond, not just volunteers?
- What wrong answers or misconceptions are likely?
- What will the teacher do if the response shows a gap?

**Cold Calling:** Makes all students think and provides feedback as to how it is going. Allows you to choose who answers, keep the whole class involved and gain better information to plan responsive next steps.

| 1 Ask the class the question | 2 Give thinking time | 3 Select someone to respond | 4 Respond to the answers | 5 Select another student & respond |
|---|---|---|---|---|
| Q aimed at everyone in the room. Name the approach. "We're going to cold call." All prepared to answer. | Allow time to think in silence before seeking responses. Scan the room to check for focus. | Could be anyone. "James, what were you thinking?" Make it safe for errors, doubts and misconceptions. | Turn each Q into a short exchange. Re-teach and prompt if necessary. **Say It Again Better.** | Another student responds to same Q or slight ext. Range of students. Repeat til your next step is clear. |

**Think, Pair, Share:** Structured discussion which can provide all students the opportunity to talk about the material Pain chemistry points. way t't way to involve all students in rehearsing and sharing ideas.

| 1 Establish talk partners | 2 Question with goal & timeframe | 3 Build in thinking time | 4 Circulate to listen | 5 Cold call to sample responses |
|---|---|---|---|---|
| Pre-determine talk partners. Odds in threes. Ideally one will not dominate the other. | Can be open discussion but usually helpful to set a precise goal e.g. List, Name Precise, short timeframes. | Pupils think individually before partner discussion. Generative thinking for all but takes more time. | Power lies in hearing what pupils say. Pick up on interesting ideas or important misconceptions. | Bring class to attention, sample with cold calling. Teacher chooses specific partner, then more pairs. |

**Show-Me Boards:** A good way to sample responses from the whole class. Students write on mini-whiteboards in response to a question and then, simultaneously, show their responses. A big hit of feedback to the teacher.

| 1 Board and pens to hand | 2 Question with goal & timeframe | 3 Build in thinking time | 4 Signal: 3-2-1 and show me | 5 Engage & follow -up responses |
|---|---|---|---|---|
| Ready to use anytime. Have systems in place to ensure it can happen at speed. | Ask students to produce particular type of response with clear goals. Timeframe given in minutes. | Every student needs the time to think and explore schema. Don't interrupt with premature sharing. | Boards shown at the same time with a crisp routine. Held up for as long as you need to absorb responses. | After scanning the responses engage with a sample to discuss, deepen or correct as needed. |

**Check For Understanding:** Effective teachers systematically check for understanding. We can't assume pupils have understood unless we get some feedback from them. It informs our next steps and secures their deeper understanding.

| 1 Cold call asking what not if | 2 Probe with a short dialogue | 3 Follow-up with more checking | 4 Explore details & differences | 5 Re-teach, defer or move on |
|---|---|---|---|---|
| After input or practice, select a pupil to share thinking. 'What have you understood?' | Go beyond accepting a short response. Use **Probing & Process Questions** to check. | Select another student and repeat the process with same/slightly developed question. 3 usually enough. | Which answer is more accurate? Are there any misconceptions? Words used correctly? All valid. | Decided on level of understanding. Move on or re-teach? More practice? Defer for another time! |

**Say It Again Better:** Sets the standard for the depth of verbal response you expect, and supports pupils to produce high-quality responses. Initially accept basic, shallow responses but develop them each time.

| 1 Ask a student a question | 2 Acknowledge the first response | 3 Give supportive feedback | 4 Invite to 'say it again better' | 5 Respond to improved response |
|---|---|---|---|---|
| Use one of the techniques to ask pupils to think about material and prepare to respond. | Be as positive as possible. If it is half-formed, perhaps: "Yes, that's a good start, let's develop it further." | Ask pupils student to consider ways in which it can be improved. Terms, descriptions, reasons. | Ask the same pupil to have another attempt. Checks for understanding, chance to practice and succeed. | Praise and move on or add more detail and depth. Demonstrates they are capable of excellence. |

**Probing Questions:** Asking questions which probe their schema for the ideas being discussed. Help pupils to make links between ideas to support long-term memory, to connect concrete and abstract ideas and to identify gaps in learning.

| 1 Ask a pupil a question | 2 Follow-up with a probing question | 3 Listen and probe further | 4 Ask another pupil to continue | 5 Check others' understanding |
|---|---|---|---|---|
| Use one of the techniques to ask pupils to think about material and prepare to respond. | What's the connection? Is that always true? Is there another example? What are the main reasons? | If that's true, what about this? Is there another way? How is that similar or different to before? | After 3, 4 or 5 exchanges, repeat with further pupils to explore their schema, probing with each. | After exchanges ask: "What did you understand from Joe's response?" Ensures listening & engagement. |

**Process Questions:** Encourage metacognitive talk during lessons. Discussions focus on the 'how do we know?' Modelling and rehearsing dialogue around these questions supports pupils to think in this way independently.

| 1 Model your thinking | 2 Emphasis how and why | 3 Ask pupils to explain methods | 4 Ask pupils to explain ideas | 5 Discuss similar alternative Qs |
|---|---|---|---|---|
| During the instructional phase narrate your thought processes explicitly as you talk through problems. | Place emphasis on how we know what we know and why the answer is the answer as far as possible. | After pupil responds, follow up with a process question. Which method? Why that order? | If pupils are choosing from options they justify them. What made you think that? Where is your idea from? | Reinforce divergent thinking to show a range of responses can be valid even if some are better. |

**Feedback That Moves Forward:** Pupils need to know how to deepen knowledge and improve performance. Effective feedback is understood, accepted and actionable. Pupils need to be motivated to apply effort to develop strategies.

| 1 Focus forwards | 2 Keep it positive & specific | 3 Match message to pupil | 4 Avoid SatNav syndrome | 5 Over time reduce feedback |
|---|---|---|---|---|
| Explain actions to improve future performance. Best given part-way through a learning cycle than at the end (for opportunity). | Framed positively to encourage. Highlight successes and be specific about how to improve. | Learn how each pupil responds to feedback as a key part of your relationship building. | Try to change their capacity to produce excellent work rather than produce an excellent piece. | Train students to generate more self-assessed feedback, using success criteria, examples etc. |

**Feedback As Action:** More effective feedback is framed as an instruction to do something rather than describing previous work. Tasks are set that address learning needs. Below are five separate not consecutive methods.

| 1 Redraft or re-do | 2 Rehearse or repeat | 3 Revisit & respond more Qs | 4 Re-learn material & re-test | 5 Research & record |
|---|---|---|---|---|
| Give opportunities to improve work by repeating it one or more times, taking on ideas about how to do it better. | Seek improvement through repetition and rehearsal with prior learning to improve fluency. | Rather than correcting previous questions, re-teach content and provide new questions. | Pupils identify specific details they found hard to recall & engage in specific retrieval practice activities. | Pupils lacking range of understanding on a topic need research tasks before improving work. |

**Whole-Class Feedback:** Excellent way to give pupils timely, detailed formative feedback whilst minimising teacher workload (instead rapidly engages with details). Replaces individual comments with feedback given to the whole class.

| 1 Read through students' work | 2 Note the strengths | 3 Note areas for improvement | 4 Give the feedback | 5 Give improvement time |
|---|---|---|---|---|
| Collect in books. Ideally read them all but, if time is pressing, a sample can be sufficient. | Identify common strengths and note them down, It prompts the few not doing it. Showcase examples. | Make a manageable list of errors. Don't shame individuals with errors but address privately if needed. | Present the feedback to the whole class. Take time to highlight examples of excellence. | Give time to make immediate improvements. Pupils identify common errors in own work. |

# Instructional Strategies Playbook

## Beyond Monet

***Effective teaching is about thoughtfully combining evidence-informed strategies, professional judgement and an understanding of how students learn to create meaningful learning experiences.***

Some evidence-informed strategies are:

Values Line

Think, Pair, Share

Numbered Heads – Group Organiser

Mind Mapping

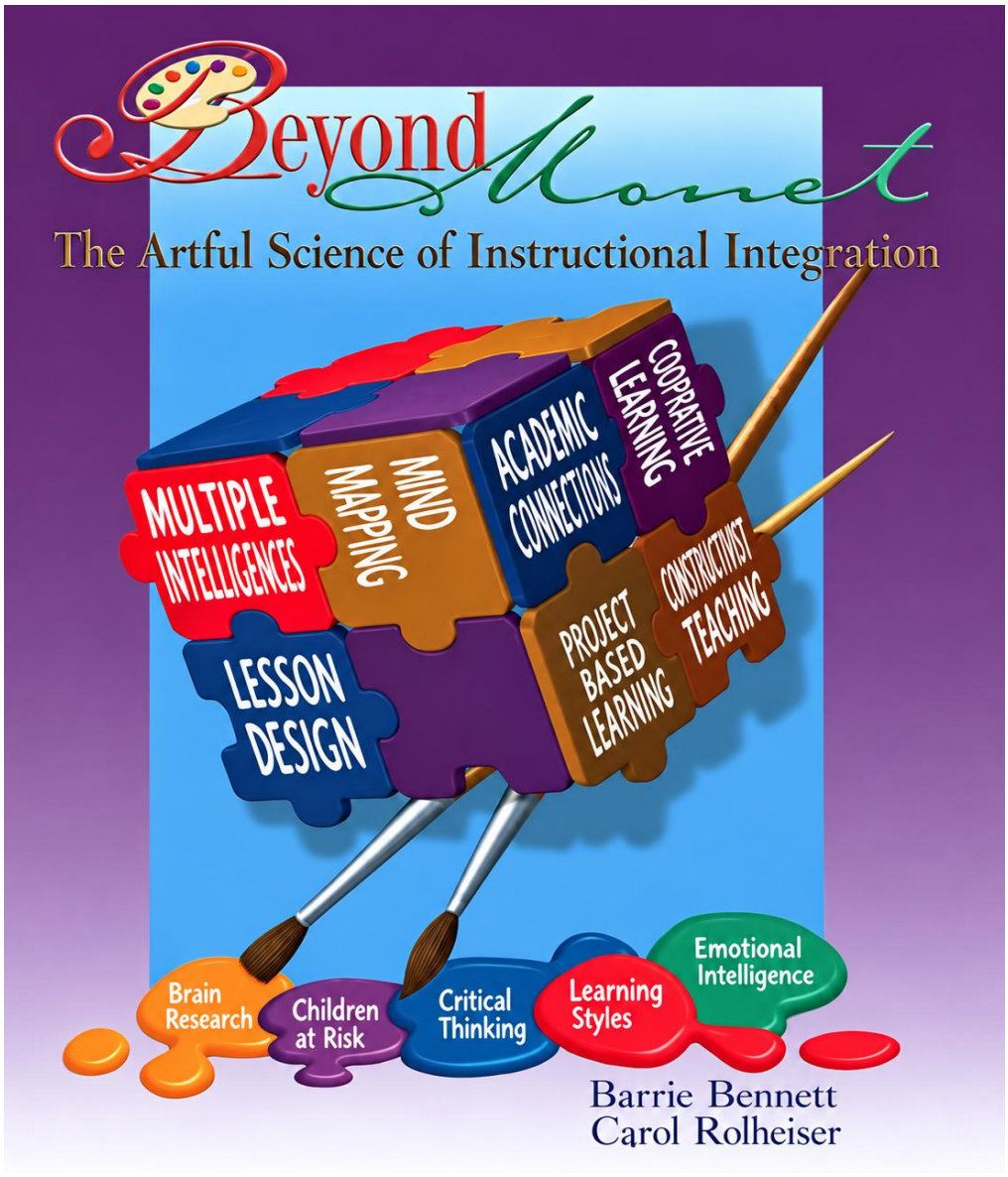
Walk About

Fishbone – Graphic Organiser

Placemat

Concept Map

Four Corners



# Instructional Strategies Playbook

## Values Line

## (Beyond Monet, page 107)

**Description:**

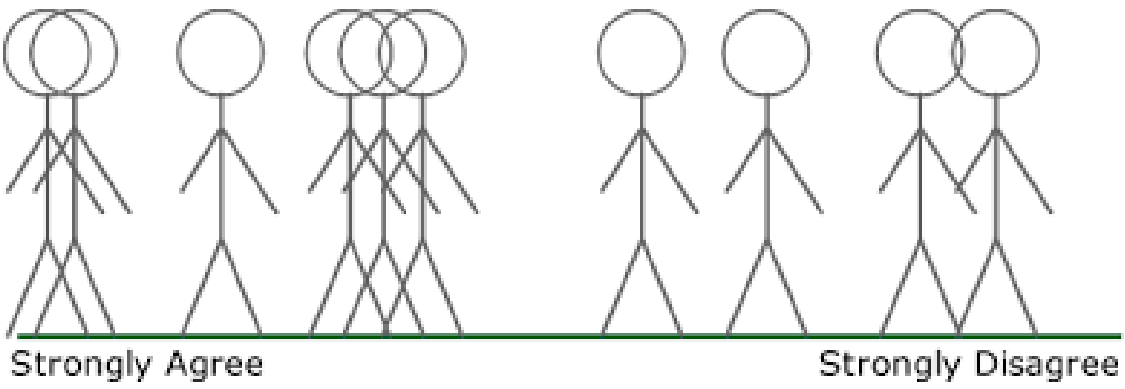
A thinking/emotion organiser where students stand on a "line" which represents their opinion/feelings on a topic.

**Steps:**

1. Introduce the students to an issue for discussion.
2. Provide students with information around the issue.
3. Designate an area where the line will form, an state which end will represent which opinions (strongly agree and strongly disagree).
4. Have the students move and stand on the line according to their personal opinions or feelings about the topic.
5.

**Key Benefits:**

- Allows for movement.
- Allows for each student to share their opinion/feelings
- Pushes the analysis and evaluation of Bloom's Taxonomy.
- Allows for kinaesthetic activity.



# Instructional Strategies Playbook

## Think, Pair Share

## (Beyond Monet, page 94)

**Description:**

A cooperative activity in which partners privately think about a question/an issue/ an idea etc. then discuss their responses with one another, then the class.

**Steps:**

1. Put students into pairs. (**Numbered Heads** may be used).
2. Teacher asks a question/presents an issue/ describes a situation/ offers an idea.
3. Give students time to think to themselves.
4. Partners take turns sharing.
5. Partners decide on the best answer/viewpoint/idea.
6. Teacher randomly calls on partners to share with the class.

**Key Benefits:**

- Involves all students actively.
- Enhances oral communication and listening skills.
- Increases student's accountability due to think time/wait time.
- Serves as a non-threatening/low risk activity.
- Encourages reluctant participants.
- Helps build confidence.



# Instructional Strategies Playbook

## Numbered Heads – Group Organiser

## (Beyond Monet, pages 106-107)

**Description:**

A group tactic that allows teachers to identify individual groups and students using a letter/number combination.

**Steps:**

1. Put students into groups.
2. Students: number off (1, 2, 3…)or  letter off (A, B, C…)
3. If the students are numbered off, then letter each group and vice versa.

**Key Benefits:**

- Allows for smoother transitions (e.g. Person B please go and collect the resources for your group).
- Promotes accountability – if Person B is called upon to share, then they need to be ready.



# Instructional Strategies Playbook

## Mind Mapping

## (Beyond Monet, pages 289-291)

### Description:

A graphic organiser that involves creatively integrating a combination of visuals, colours, codes, words and connections.

### Steps:

1. Select a topic – use a visual to be places in the centre that will capture the essence of the topic.
2. Brainstorm key ideas – person or group.
3. Pick out most important ideas that will branch out.
4. Draw a picture or symbol to represent to key ideas.
5. Connect key words to central topic with line or bubbles.
6. Flow ideas out from key ideas.
7. Remember to use visuals and label with words.
8. Reflect/share with a partner or small groups.

### Key Benefits:

- Provides a visual display of learning.
- Involves pictures and/or writing.
- Shows a relationship between concepts
- Encourages students to "make connections" in their learning.



# Instructional Strategies Playbook

## Walk About

## (Beyond Monet, page 109)

**Description:**

An activity involving a member of one group joining another group in order to gain ideas. This is a process that links other more complex processes.

**Steps:**

1. Students complete an activity (discussion, placemat, etc.)
2. Teacher then asks one person from each group to visit another group and share some of their groups' ideas.

**Key Benefits:**

- Builds individual accountability.
- Provides physical movement and variety.
- Develops oral communication skill.
- Promotes active listening.
- Allows students to hear a wide range of ideas and see more samples of work.



# Instructional Strategies Playbook

## Fishbone – Graphic Organiser

## (Beyond Monet, page 102)

**Description:**

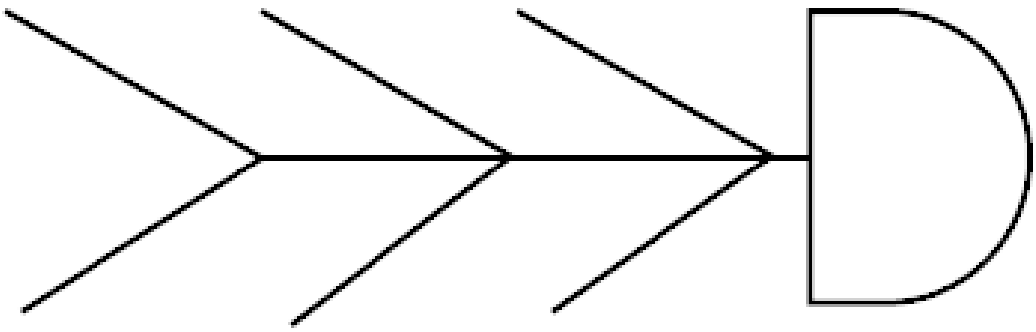
A graphic organiser used to sort and classify.

**Steps:**

1. Present a topic
2. Brainstorm ideas related to the topic.
3. At the head of the fishbone, write a topic.
4. On each bone, label with a factor which is related to the topic.
5. Under each factor, more specific thoughts can be listed.

**Key Benefits:**

- Provides a visual display of learning.
- Encourages thinking at the analysis and evaluation level of Bloom's Taxonomy.



# Instructional Strategies Playbook

## Placemat

## (Beyond Monet, pages 172-173)

**Description:**

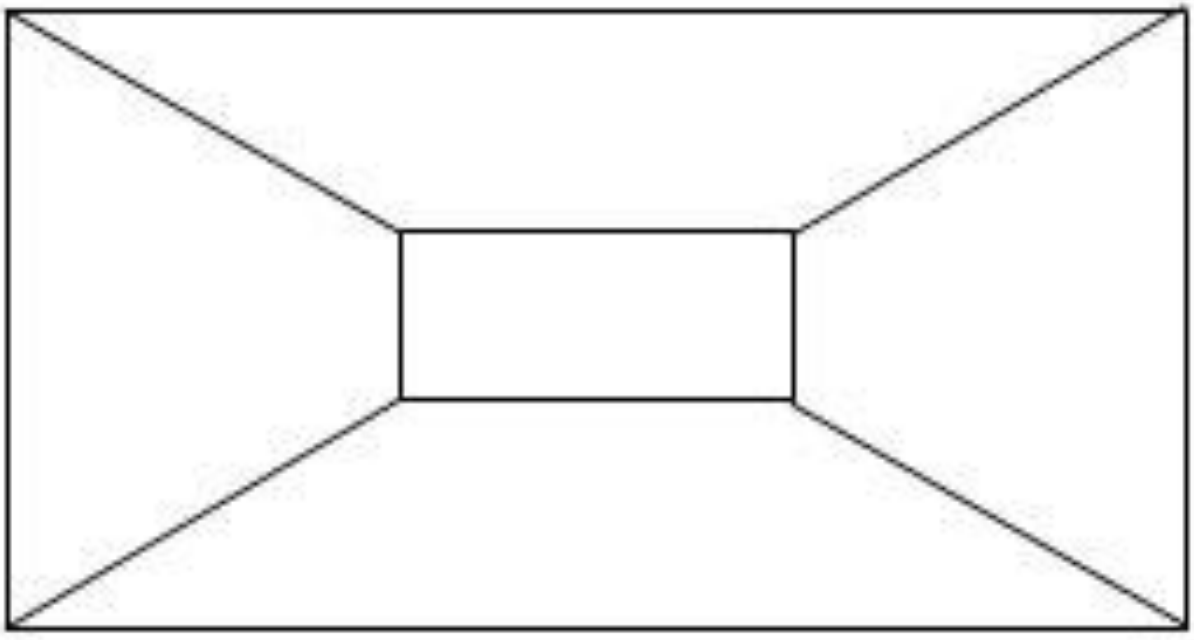
Involves students working both independently and collaboratively around a single piece of paper with the goal of reaching consensus on a topic being investigated.

**Steps:**

1. Divide paper into equal sections based on the number of members in the group and put a square or circle in the centre of the paper.
2. Each member writes their ideas in an assigned section of the placemat.
3. The group's central idea (consensus) is written in the centre after the group members have shared their ideas.

**Key Benefits:**

- Creating a visual display of learning.
- Develops and fosters collaboration with each student being accountable for their work.



# Instructional Strategies Playbook

## Concept Map

## (Beyond Monet, pages 292-294)

**Description:**

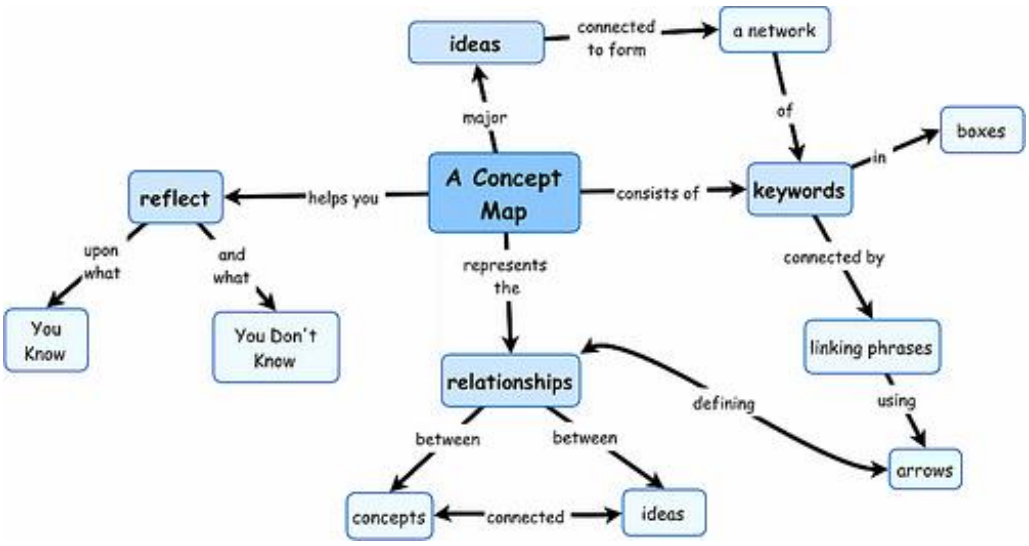
A visual representation illustrating the understanding of relationships between concepts or facts.

**Steps:**

1. Brainstorm (individually or in a group) the key ideas of a topic.
2. Put ideas onto post-it notes.
3. Sort and classify the post-it notes, looking for relationships between ideas.
4. If working alone, students can do a **Gallery Walk** to see how others are sorting.
5. Place ideas onto chart paper, starting with the major idea at the top.
6. Each idea extends from a more complex idea to a less complex idea, often ending with an example.
7. Draw lines between concepts.
8. Linking words are placed on the lines stating the relationship between concepts.
9. Look for cross-links between different concepts.

**Key Benefits:**

- Increases students' abilities to organise, represent and connect their thoughts and learning.
- Helps learners activate and retrieve prior knowledge.
- Provides a visual display of learning.



# Instructional Strategies Playbook

## Four Corners

## (Beyond Monet, pages 162-166)

**Description:**

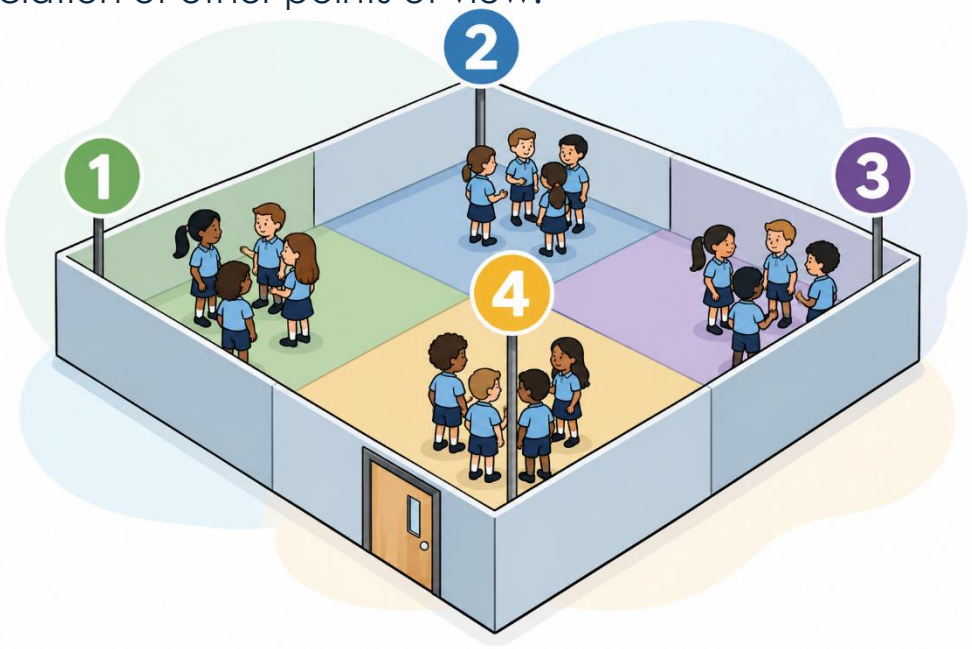
Students individually consider an issue and move to an area (corner) of the room where they share their ideas.

**Steps:**

1. Begin with a statement, issue or question.
2. Designate and label four corners of the room – "STRONGLY AGREE", "AGREE", "DISAGREE" and "STRONGLY DISAGREE".
3. Students think for 30 seconds (no discussion) and then move to the corner that represents their stance.
4. Students pair up and share why they made that decision.
5. Teacher calls on pairs of students to share why they chose that corner.
6. Students move to a different corner if they have been persuaded to change their stance.

**Key Benefits:**

- Allows students to operate at more creative and evaluative thinking levels.
- Useful for getting students to debate.
- Involves all students.
- Allows opportunities for oral communication.
- Stimulates discussion.
- Allows for kinaesthetic activity.
- Encourages appreciation of other points of view.



# Instructional Strategies Playbook

**Appendix A**

# 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.

HOW2
teachinghow2s.com

### 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



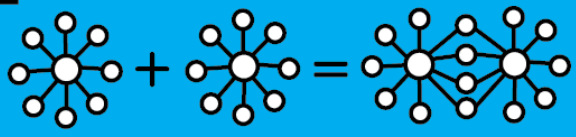
Our working memory is small, only handling a few bits of information at once. Avoid its overload — present new material in small steps and proceed only when first steps are mastered.

### 03 ASK QUESTIONS



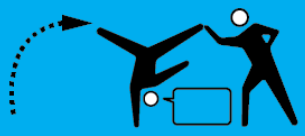

The most successul teachers spend more than half the class time lecturing, demonstrating and asking questions. Questions allow the teacher to determine how well the material is learned.

### 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



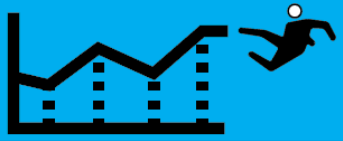
Students need additional time to rephrase, elaborate and summarise new material in order to store it in their long-term memory. More successful teachers built in more time for this.

### 06 CHECK STUDENT UNDERSTANDING



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

### 07 OBTAIN HIGH SUCCESS RATE



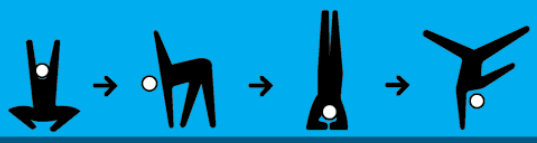
A success rate of around 80% has been found to be optimal, showing students are learning and also being challenged. Better teachers taught in small steps followed by practice.

### 08 SCAFFOLDS FOR DIFFICULT TASKS



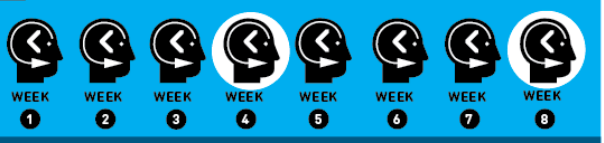
Scaffolds are temporary supports to assist learning. They can include modelling, teacher thinking aloud, cue cards and checklists. Scaffolds are part of cognitive apprenticeship.

### 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.

DESIGNED BY JAMIE CLARK | @XPATEDUCATOR

A research-informed guide from Dr. Lorraine Hammond (Professor Emerita, University of Auckland) and Oliver Tancock.



WITH SUPPORT FROM DR. JARROD HAMPSON

# EXPLICIT INSTRUCTION

## DIRECT, ENGAGING AND SUCCESS ORIENTATED TEACHING

### EXPLICIT INSTRUCTION

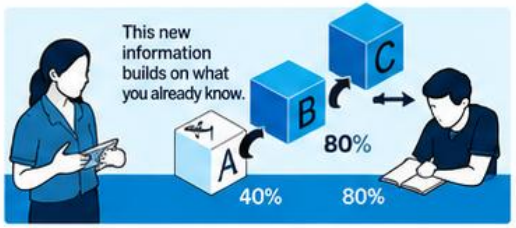
**CLEAR INSTRUCTION, DESIGN AND DELIVERY**

Explicit instruction is a structured and systematic teaching approach that provides clear and concise explanations, actively engages students in learning, and uses frequent checks for understanding to monitor progress. It is especially effective for developing foundational knowledge and skills, and is based on evidence from cognitive science and empirical research. When well designed and delivered, explicit instruction can improve student outcomes, particularly for learners who need additional support, and ensure active and successful participation by all students.

### THE 4 KEY PRINCIPLES

**MAXIMISE STUDENT ENGAGEMENT AND LEARNING**

1. Combine engaged time on task with active participation.
2. Promote high levels of success (80% correct is a goal).
3. Involve numerous examples to improve fluency.
4. Use structured questioning to check understanding.
4. Builds real-world links by providing opportunities for application.




### HIGH LEVELS OF SUCCESS

**WORK TOWARDS INDEPENDENT PRACTICE**

Research shows that moderate to high success rates lead to more, both positive and specific, feedback on the quality of students' work and key ideas are easily obtained and retain their accuracy. While high levels of success lead to productive performance. Errors can therefore provide reason to revisit prior learning and re-teach to strengthen understanding. Explicit instruction seeks to minimise errors and keep all students actively engaged with frequent successes and new knowledge and frequent, varied retrieval.

### DELIVERING INSTRUCTION

**THE 4 ESSENTIAL DELIVERY SKILLS**

1. Predict, prepare and sequentially show new content.
2. Master student performance accurately.
3. Promote high levels of active student participation.
4. Check for the review of a done piece.

**THE RELATIONSHIP BETWEEN THE 4 ESSENTIAL DELIVERY SKILLS**

| 1 INPUT | 2 QUESTION | 3 RESPONSE | 4 MONITOR | 5 FEEDBACK |
|---|---|---|---|---|
| Present new information in small chunks. | Check students' understanding and elicit ideas. | Ask students to provide accurate responses. | Review student responses, provide feedback and re-teach. | Guide students as they practise and apply. |

| LESSON OPENING | LESSON BODY | | | LESSON CLOSING |
|---|---|---|---|---|
| GAIN ATTENTION | MODELLING ("I DO") | GUIDED PRACTICE ("WE DO") | PRACTICE ("YOU DO") | REVIEW |
| **PREVIEW** State the goal of the lesson and show the new knowledge or larger skill. **REVIEW** Review the critical prerequisite skills required. | **SHOW & TELL** Demonstrate the skill step by step with examples while thinking aloud. **THINK ALOUD** Consciously use relevant language and extra examples to key points. | **FADE PROMPTS** 1. Provide prompts. 2. Model positive & varied responses. **REDUCE LEVELS OF SCAFFOLDING** 1. Ask more. 2. Assess often. 3. Remove them, while so do. | **NO SUPPORT** 1. Provide varied problems or tasks. 2. Gradually decrease use & level of prompts. 3. Check student understanding through feedback of their work / performance. | **REVIEW** Review the critical content covered. **PREVIEW** Preview the content of the next lesson. **ASSESS** Gather information about individual and group progress. |
| ESTABLISH PURPOSE FOR LEARNING | PROVIDE A MODEL OF EXPECTTATIONS | BUILD ACCURACY AND EFLUENCY | ENSURE AND EXTEND LEARNING | |

**THROUGHOUT THE LESSON: INVOLVE STUDENTS, MONITOR PERFORMANCE, PROVIDE FEEDBACK.**

### ACTIVE PARTICIPATION

**ELICIT FREQUENT RESPONSES FROM ALL**

To be successfully instruction must be responsive. Active participation requires multiple frequent responses from **ALL** students to be varied by getting them to say, write or do something physical. It must be inevitably sustained and involve methods designed to minimize opportunities to opt out, such as no hands up, mini whiteboards, choral responses and individual and group responses.
It should be used for all seat 30+ seconds.



**TEACHER RESPONSIBILITIES**

- **HARD SIGNALS (RVA):** Response, Build, Answer
- **ENACTED:** Ask a lot, cold, rapid and pair.
- **ROUTINES:** Model responses before use and be relentless.



**STUDENT RESPONSIBILITIES**

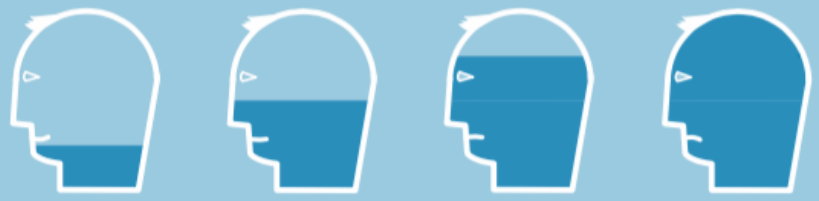
- **MINIMISE ERRORS**
- **RESPONSES:** Choral, Partner, Everyone, Whole Class.
- **MORE QUESTIONS (OTR):** Track, monitor and adjust.
- **WRITTEN SUMMARY.**



**BOTH RESPONSIBILITIES**

- **CHORAL RESPONSE:** Everyone say it to show.
- **THINK, PAIR, SHARE**
- **FAULT PROCEDURE:** Keep responses accurate and active.
- **RUBRICS OR RADAR:** Show success to maintain high expectations.

**READ THE BOOK FOR DEEPER INSIGHT:** EXPLICIT INSTRUCTION: EFFECTIVE AND EFFICIENT TEACHING BY ANITA L. ARCHER AND CHARLES A. HUGHES, 2011.



# COGNITIVE LOAD THEORY *EFFECTS*

Springer

AN INFOGRAPHIC SUMMARY OF THE BOOK COGNITIVE LOAD THEORY BY JOHN SWELLER, PAUL AYRES, SLAVA KALYUGA [2011]

EFFECT 01

## THE GOAL-FREE EFFECT



When novices solve a conventional problem, they will frequently work backwards from the goal to the givens using a means-end strategy.

Learners are more likely to acquire schemas under goal-free than conventional goal conditions.

EFFECT 02

## THE WORKED EXAMPLE EFFECT




Studying worked examples provides one of the best, possibly the best, means of learning how to solve problems in a novel domain.

Worked examples can effectively provide us with problem solving schemas that need to be stored in long-term memory.

EFFECT 03

## THE SPLIT-ATTENTION EFFECT

Split-attention occurs when learners are required to split their attention between at least two sources of information that have been separated either spatially or temporally.

Worked examples had no advantage over conventional problem solving when they were constructed in a split-source presentation.



EFFECT 04

## THE MODALITY EFFECT

The amount of information that can be processed using both auditory and visual channels should exceed the processing capacity of a single channel.

The modality effect is usually stronger for measures of transfer rather than retention.




EFFECT 05

## THE REDUNDANCY EFFECT



The redundancy effect occurs when information that includes redundant material results in less learning than

EFFECT 06

## THE EXPERTISE REVERSAL EFFECT



The need for experts to establish connections between elements of presented information and their