

Bright lives. Positive futures.

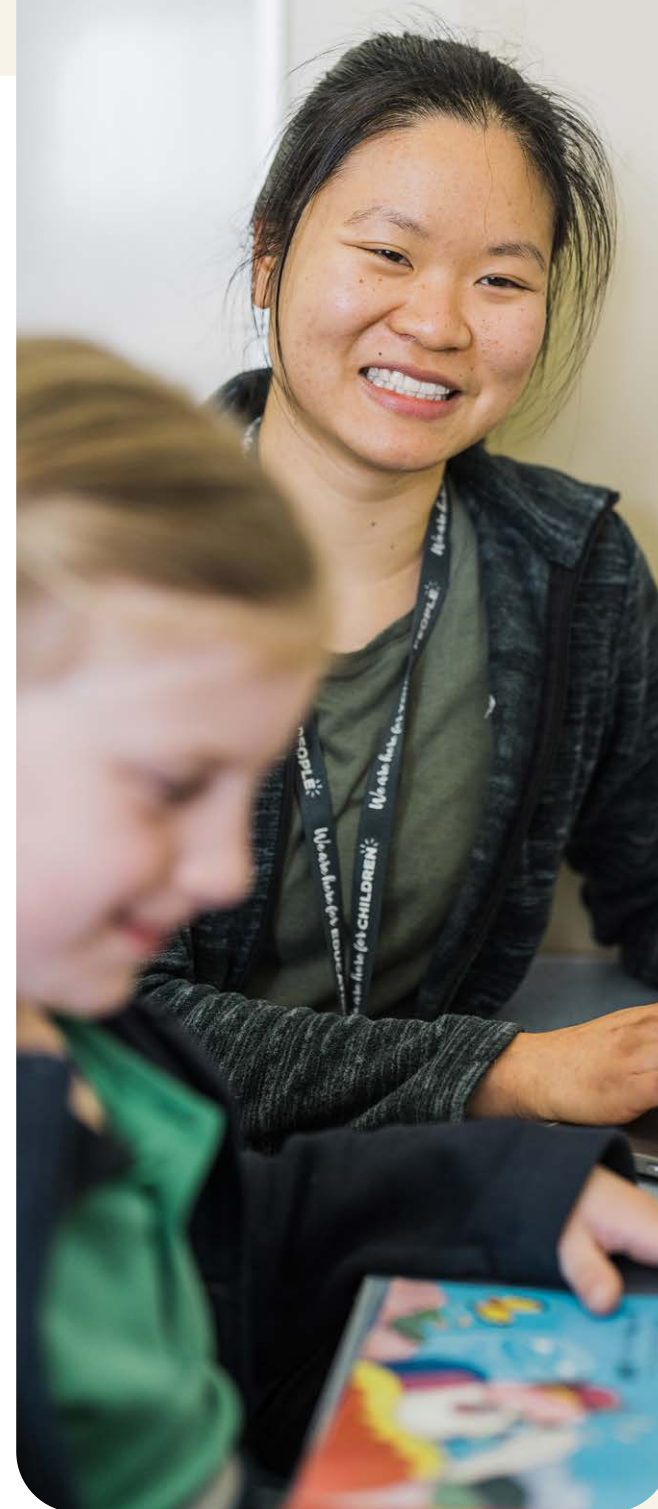
The Pedagogical Framework

Teaching for how students learn.



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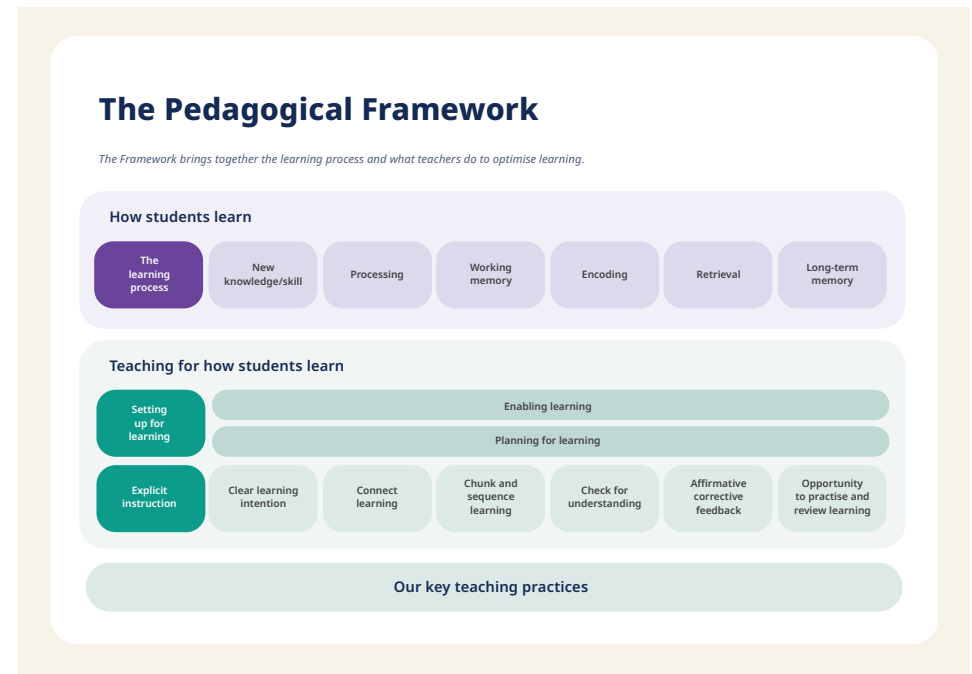


Introduction

The Pedagogical Framework brings together the process of how students learn with the evidence-based strategies and practices teachers use to optimise learning. The Framework is relevant for all Tasmanian Government schools, from Kindergarten to Year 12.

Key points about the Framework

- Describes the processes that occur in the brain during learning through the learning process
- Defines explicit instruction strategies that support students to learn new knowledge and skills
- Outlines broader key teaching practices that evidence demonstrates have a strong positive impact on learning
- Supports the development of teacher practice and places a focus on learners at the centre of designing, practising and reflecting on teaching
- Supports the ongoing improvement of leaders and teachers by developing consistent practice for teaching and learning across our system
- The Framework is adaptive and multi-layered, enabling leaders and teachers to use different elements depending on need and school context



The Framework and the School Improvement Tool

The Framework is aligned to Domain 8 of the School Improvement Tool.

School Improvement Tool

Domain 1 Driving an explicit improvement agenda

Domain 2 Analysing and discussing data

Domain 3 Promoting a culture of learning

Domain 4 Targeting school resources

Domain 5 Building an expert teaching team

Domain 6 Leading systematic curriculum implementation

Domain 7 Differentiating teaching and learning

Domain 8 Implementing effective pedagogical practices

Domain 9 Building school-community partnerships

Domain 8: Implementing effective pedagogical practices

- The principal has clearly articulated their expectations for the school-wide use of effective, evidence-informed teaching strategies.
- School leaders and teachers keep abreast of research on effective teaching practices.
- School leaders and teachers purposefully collaborate in discussing, modelling, observing, and providing constructive feedback on teaching practice.
- School leaders and teachers draw on a range of evidence to regularly evaluate the effectiveness of teaching and make enhancements to practice.
- Teachers use a range of evidence-informed teaching strategies, including:
 - Setting high expectations for every student's progress and ambitious goals for improvement.
 - Supporting student understanding of learning goals and what it means to be successful.
 - Engaging in regular improvement-focused teacher-student and student-student feedback interactions.
 - Fostering students' beliefs in their own capabilities to learn successfully and their understanding of the relationship between effort and success.
 - Creating classroom and applied learning environments in which all students are engaged, challenged, feel safe to take risks, and are supported to learn.
 - Explicit and guided instruction.
 - Questioning to gauge and stimulate students' thinking.
 - Promoting deep learning by emphasising underlying principles, concepts, and big ideas.
 - Deliberately building on previous learning and assisting students to see the continuity in their learning over time.

Australian Council for Educational Research. (2023). School Improvement Tool.

<https://doi.org/10.37517/978-1-74286-700-7>

The Framework and Quality Teaching

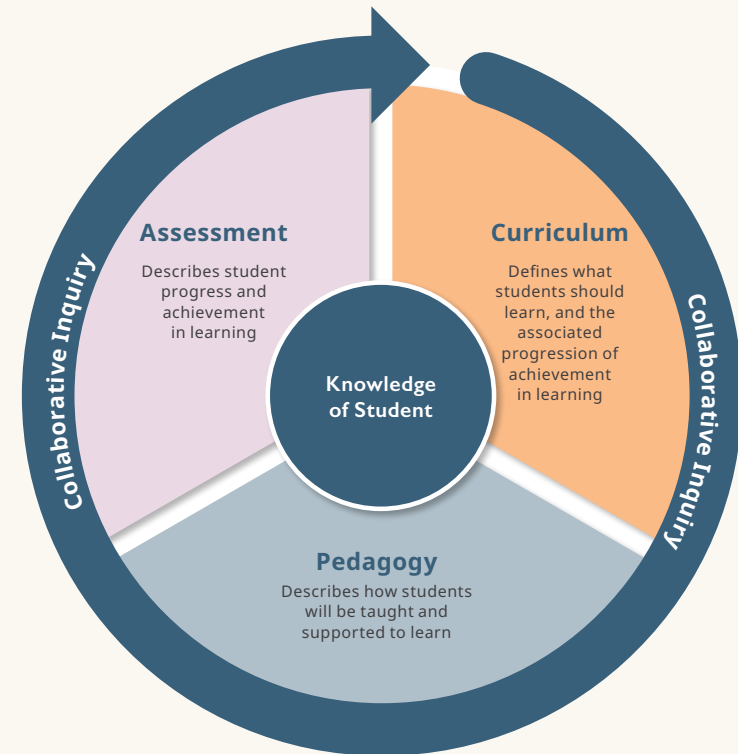
The Pedagogical Framework provides guidance on evidenced-based strategies and practices supporting our expectations for every teacher. These expectations reflect an integrated approach for quality teaching aligning curriculum, assessment and pedagogy.

The curriculum defines what students should learn and the sequence of knowledge and skills across the years of schooling.

When planning, teachers start with the relevant year level/s of the curriculum and how they will assess student progression towards meeting those curriculum expectations.

This Framework outlines strategies and practices for teachers to use that will support students to access the knowledge and skills of the relevant curriculum. The strategies and practices reflect how students learn best. Learning is supported by a multi-tiered system of supports (MTSS) which begins with quality Tier 1 instruction.

When teachers bring together knowledge of their students along with the curriculum content and standards, and draw on the strategies and practices, they are able to respond and adapt to student learning needs.



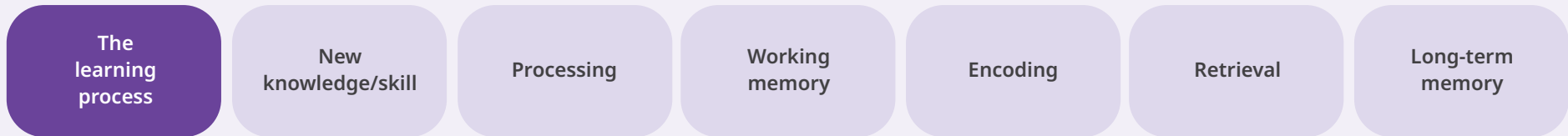
Expectations for every teacher:

- Know their students and where they are in their learning
- Know the standards and content of the learning area
- Use effective evidence informed teaching practices
- Reflect on the impact of teaching practice

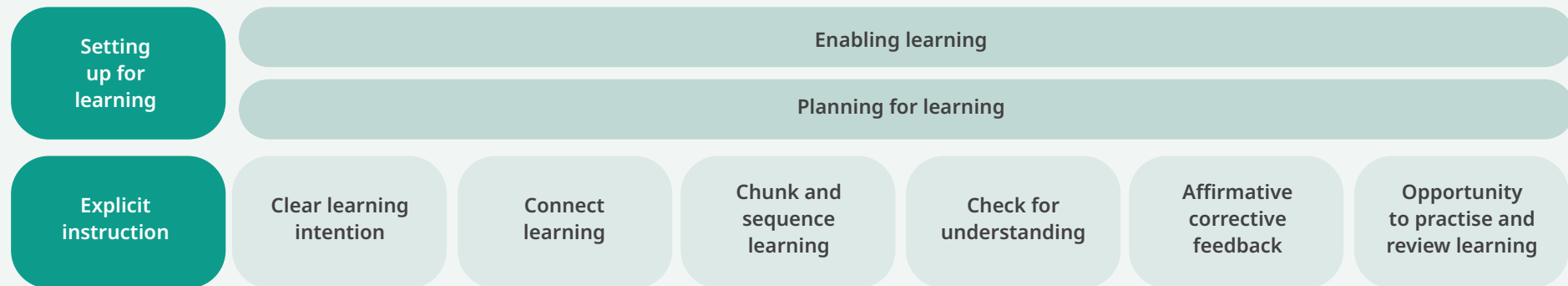
The Pedagogical Framework

The Framework brings together the learning process and what teachers do to optimise learning.

How students learn



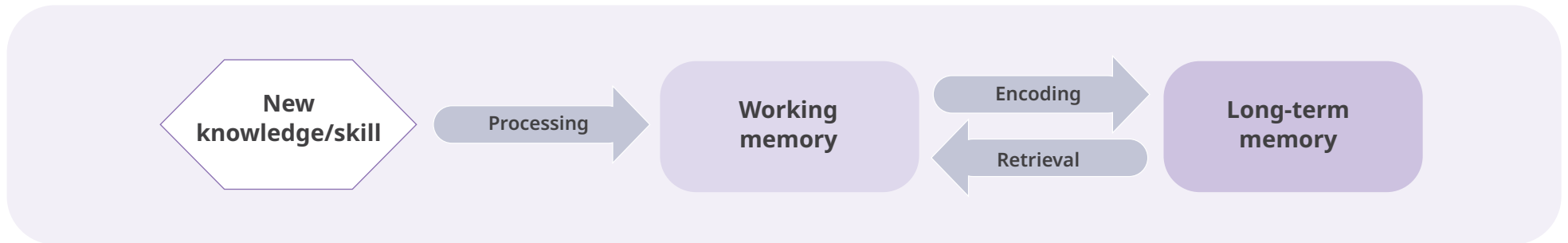
Teaching for how students learn



Our key teaching practices

The learning process

This process describes how students learn and what occurs in the brain during learning. Learning involves processing new information through working memory and moving it to long-term memory where it can later be retrieved and used. Working memory has limits and learners can experience cognitive overload when trying to process too much information at one time. Strategies for explicit instruction help to manage cognitive load, are integral to a multi-tiered system of supports and have a positive impact on learning.



New knowledge/skill	Processing	Working memory	Encoding	Retrieval and consolidation	Long-term memory
	Information moves into working memory when learners are focused and attentive	Neural connections are established when learners think about and interact with new information, make mistakes and practise new skills	Neural pathways are created by clustering and encoding information, connecting learners' new and prior knowledge and understanding to long-term memory	Neural pathways are strengthened when learners retrieve and use information from long-term memory multiple times in multiple ways and at spaced intervals	Complex and interconnected webs of neural pathways (schemas) are created and strengthened when learners apply information and knowledge in new ways
	Learners become engaged and commit to learning	Learners focus on new knowledge and understanding	Learners make connections	Learners practise and deepen learning	Learners extend and apply learning in different and creative ways

Setting up for learning

Teachers create and sustain the environment to ensure students are known, safe, well and learning. By fostering the conditions for belonging and cultural safety, teachers support engagement, attention and focus. Teachers intentionally develop and plan for the knowledge and skills students are to acquire, retain and apply.

Enabling learning	Planning for learning
Build relationships – get to know your students and how they learn.	Identify the learning students will acquire and the relevant pre-requisite knowledge and skills.
Establish expectations and routines that support students to focus on learning.	Chunk the intended learning and sequence it to build complexity and include enabling and extending prompts.
Model respectful interactions to foster positive relationships and belonging.	Develop and plan tasks appropriately for acquiring, retaining and consolidating learning.
Promote a growth mindset – beliefs about ability can influence learning.	Consider specific questions to monitor student understanding of knowledge and skills.
Support students to reflect on techniques to optimise their learning (self-regulation) and how to plan, monitor and evaluate their learning (metacognition).	Use data and evidence of learning to inform planning and to adjust the frequency, intensity and duration of intervention.
Manage student attention, focus and cognitive load.	Plan tasks and processes to assess and monitor learning needs, progress and attainment.
Develop cultural responsiveness to meet the learning needs and aspirations of all students.	Plan for multiple opportunities to practise, consolidate and review learning over time.
Engage with families to invite communication and collaboration with their child's learning.	Use collaborative structures to strengthen planning, teaching, monitoring and assessing.



How explicit instruction supports learning

Explicit instruction is a systematic and structured approach that involves the teacher breaking down new learning, clearly explaining and effectively demonstrating, and providing guided support as students master learning.

Explicit instruction contributes to positive outcomes for students' learning achievement and dispositions. To maximise learning (storage in long term memory) explicit teaching is dynamic and responsive. These strategies are most effective because they align with the learning process and how students acquire new knowledge and skills.

The mechanisms of learning are consistent for all students, but some face persistent difficulties or differences in processing information, requiring more frequent, intense, and sustained support. Evidence-based strategies that align with acquiring, retaining, retrieving, and consolidating learning benefit all students by addressing limitations in working memory, information processing, and attention.

Strategy	When teachers ...	This helps students to ...
Clear learning intention	Support students to understand the intention, goals and success criteria of the learning.	Focus on the key information or main idea to be learnt, and to understand the purpose of the new learning and think about how it relates to what they already know.
Connect learning	Help students to connect new knowledge with prior learning.	More effectively retain new learning by making connections in memory to what they already know.
Chunk and sequence learning	Chunk the intended learning and sequence it to build in complexity.	Manage and retain new knowledge and skills when it is presented in smaller chunks. Working memory is limited and can only process small amounts of information at a time.
Check for understanding	Check for understanding and monitor where all students are in their learning by active exchanges that include questioning, elaborating and thinking aloud.	Engage in learning and retrieve information through responding to questions and explaining their thinking. Student responses and interactions indicate the level of support/guidance required from teachers.
Affirmative and corrective feedback	Support students' learning by providing immediate, affirmative and corrective feedback.	Know if they are on track with their learning. Feedback corrects misconceptions or errors and consolidates learning.
Opportunity to practise and review learning	Provide students with time to review and practise what they have learned with guidance through to independent practice.	Move from knowledge and skill acquisition to generative learning and metacognition when they have opportunities to practise. Practice reinforces and strengthens the connections in long-term memory, making it easier for students to retrieve and apply what they learn.

Understanding the strategies for explicit instruction

Clear learning intention

A short statement about the goal of a lesson, series of lessons or task, outlining what students are expected to learn.

- Learning intentions are most effective when used with success criteria.
- Teachers begin the lesson with a clear statement of lesson purpose and expectations.
- Learning intentions are aligned to the curriculum, written in student-friendly language and describe what students should know, understand and be able to do.
- Teachers use success criteria to help students understand how well they have met the learning intentions and to break down what students need to do to demonstrate and work towards achieving the objectives.
- Teachers refer to learning intention and success criteria throughout the lesson, including checking that students have met the success criteria by the end of a lesson or by the end of a sequence of learning.

Connect learning

When new knowledge and skills are connected to prior knowledge, and when students are explicitly reminded of these connections, the learning is more effective.

- Teachers review prior learning and activate student knowledge to reinforce and build on learning.
- Teachers use data and evidence of learning and can also seek insights from students and families.
- Teachers help students to connect new knowledge to prior learning (e.g. sorting ideas, similar and different, integrating new skills with other skills) to optimise the limitations of working memory.
- Teachers provide opportunities for students to retrieve learning from long-term memory to build new and strong connections and to consolidate learning.
- During the lesson teachers connect with the learning objectives and success criteria.

Understanding the strategies for explicit instruction

Chunk and sequence learning

Breaking the curriculum concept/skills into smaller, more manageable components and sequencing it to build in complexity.

- Teachers chunk complex concepts, strategies, or skills and break up intended learning to optimise working memory.
- Teachers intentionally sequence learning to manage students' cognitive load and build skills gradually (e.g. less difficult skills then more complex skills).
- Teachers present information clearly and explicitly in small chunks, with explanation, demonstration and modelling.
- Teachers introduce new skills in isolation then integrate with other skills and scaffold learning by building in support and extension.

Check for understanding

Teachers check for understanding throughout the lesson to establish where all students are in their learning and give additional instruction, guidance or feedback as needed.

- Teachers use a mixture of observation and questioning to check how well students have understood the new learning.
- Teachers specifically plan for and intentionally use a variety of strategies to elicit student understanding to enable them to adapt their teaching in response.
- Teachers regularly check student understanding by seeking frequent student responses to identify gaps and adjust teaching before removing scaffolds or moving to independent practice.
- Teachers monitor learning needs and support students to access additional instruction, guided practice and scaffolds as needed.
- Teachers can check for student understanding through individual and choral (group) responses using wait time and questioning.

Understanding the strategies for explicit instruction

Provide affirmative and corrective feedback

Feedback should be specific and tailored to the learning intention with actionable steps for improvement.

- Teachers give immediate, affirmative and corrective feedback.
- Teacher feedback guides students to understand how they are progressing against the success criteria.
- Teachers provide feedback that is constructive and clear, and they do not let mistakes go without follow up.
- Feedback should focus on correcting conceptual misunderstandings rather than repeating processes or content.
- The feedback should highlight success, check progress and plan for improvement through actionable suggestions.
- Teachers give opportunities for students to reflect on their learning and act on feedback.

Provide opportunity to practise and review learning

Opportunities for spaced, varied and repeated practice helps to consolidate learning, making it easier to retain, retrieve and apply learning in different ways.

- Teachers provide multiple opportunities for students to revisit, connect and consolidate learning, helping students to maintain knowledge and skills in long-term memory.
- Teachers provide a range of tasks over time for both guided and independent student practice to maximise retention, consolidate and apply the learning.
- Teachers regularly revisit and review learning over time (weekly and monthly) to retain in long-term memory.
- Teachers provide opportunities for students to solve appropriately challenging and unfamiliar problems to enable them to apply, extend, demonstrate mastery and generate new learning.

Explicit instruction with gradual release

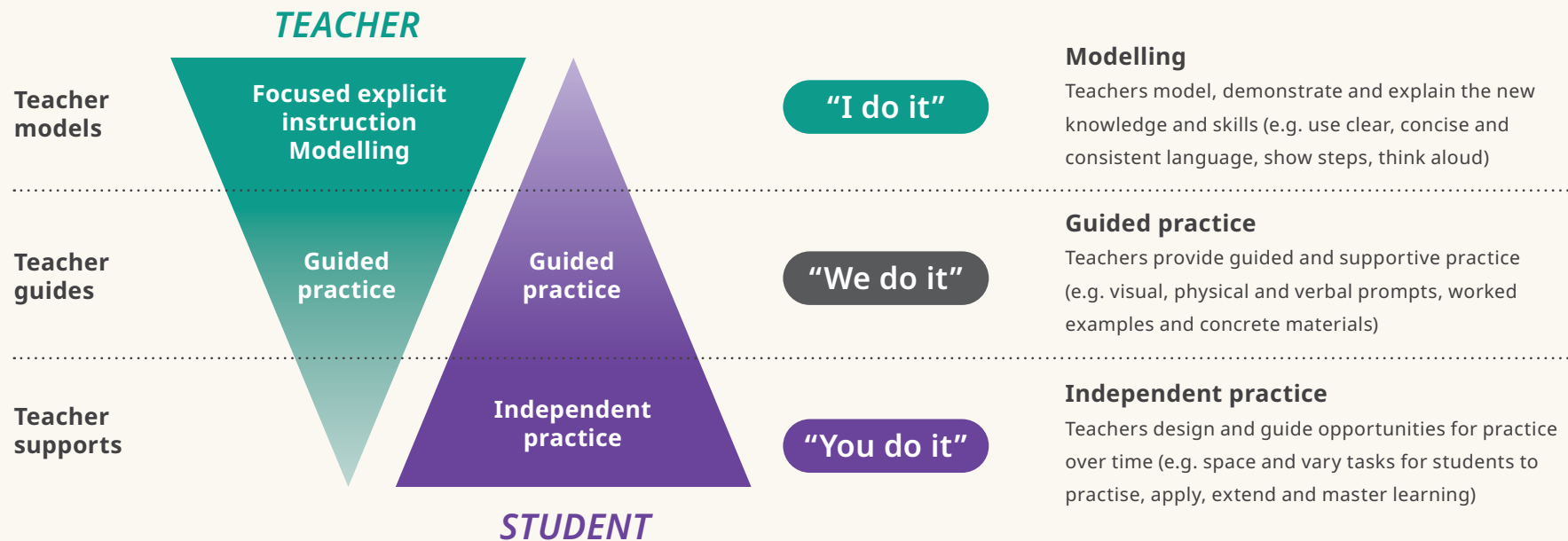
The gradual release of responsibility approach scaffolds student learning by shifting responsibility from the teacher to the student. The gradual release approach of teaching emphasises explicit teaching and guided practice, transitioning to a gradual release of guidance as students gain mastery and are prepared to apply their learning independently.

When students are engaging with new and foundational knowledge and skills, learning is most effective when teachers break down the information, explicitly

teaching it using modelling and demonstration. Gradual release of responsibility is not always a linear process. Teachers check for understanding as students move between modelled, guided and independent practice.

The approach balances the time spent with teacher-led instruction and the level of support provided, ensuring it is tailored to students' developmental stages and individual learning needs, all within a supportive environment that minimises cognitive overload.

Gradual release of responsibility approach



Structure of a lesson using explicit instruction and gradual release

This structure supports teachers to optimise learning for students when they are learning new and foundational knowledge and skills. The initial focus is on explicit instruction recognising students are new to the learning, and gradually releasing responsibility as students gain mastery of the learning.

Teachers monitor students' understanding and respond and adapt support for students to enable success. Students may move forwards and backwards throughout the process and gradual release may occur over a number of lessons. Students may practice collaboratively or individually.

Opening	Body			Closing
Review	Modelling <i>I do it</i>	Guided Practice <i>We do it</i>	Independent Practice <i>You do it</i>	Review
<ul style="list-style-type: none"> Review prior knowledge and skills Check for student understanding 	<ul style="list-style-type: none"> Step by step demonstration – model the skill in small chunks Demonstrate and think aloud Use clear and consistent language Explain new vocabulary Be concise and maintain a brisk pace Model using worked examples Compare examples and non-examples Actively involve students Check for understanding 	<ul style="list-style-type: none"> Provide multiple opportunities for practise using a range of prompts: <ul style="list-style-type: none"> Physical Verbal Visual Check understanding Provide immediate corrective and affirmative feedback, clues and prompts Respond to student needs and adapt by: <ul style="list-style-type: none"> reducing the level of scaffolds, or providing additional instruction/support 	<ul style="list-style-type: none"> Students practise without prompts or teacher guidance Present similar problems or tasks and move to varied tasks, spaced over time Monitor student understanding and provide timely feedback Maintain learning progress by re-teaching and modelling to whole class, small groups or individual as needed Provide opportunities to challenge, extend and to achieve mastery Check for understanding 	<ul style="list-style-type: none"> Involve students in reviewing the critical content covered and refer to learning intentions Check for understanding
Preview				Preview
<ul style="list-style-type: none"> Explain the learning intention clearly Connect the new learning to what students already know Help students understand the purpose of what they are learning 				<ul style="list-style-type: none"> Preview the content of the next lesson to help students make connections in learning

← Throughout the lesson teachers: Involve students, Ask questions, Monitor performance, Provide feedback, Respond and adapt →

* Explicit instruction strategies are bolded

Our key teaching practices

Our key teaching practices have been selected because evidence demonstrates that, when executed well, they have strong positive impacts on learning. They align with the strategies for explicit instruction that recognise and support how students learn. Research shows the strategies for explicit instruction are most effective when teaching new knowledge and skills. The key teaching practices go beyond explicit instruction and are additional components of high-quality teaching and learning.

The five key teaching practices outlined in this Framework are

Teachers intentionally develop metacognition and self-regulation in learners

Teachers support learners to understand the intention, goals and indicators of learning

Teachers facilitate the sharing of feedback to progress learning

Teachers foster learners' agency and collaboration with peers, teachers, and the community

Teachers enable learners to create and challenge meaning through questioning

What is an effect size?

An effect size is a quantitative measure of the impact of different teaching approaches on learning. Effect sizes describe the size of the difference between two groups in a standard and comparable way. It is from effect sizes that months impact can be derived.

What does 'months impact' mean?*

Months impact is estimated in terms of the additional months progress you can likely expect children and young people to make as a result of implementing an approach, compared to similar children and young people who did not receive the approach. The months impact takes the average progress over a year as the benchmark.

*Education Endowment Foundation 2019,
<https://evidenceforlearning.org.au/education-evidence/teaching-learning-toolkit>

Key practice on a page

Learners are empowered to think about their own thinking and learning, become motivated and able to regulate their own learning through **metacognitive and self-regulation practices**. Metacognitive practices are about teaching learners how to learn and can include explicitly planning for how to approach learning, using visible thinking routines, reflecting on experience and progress, and monitoring individual comprehension.

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Learners

- Have opportunities for setting goals and managing their own behaviour
- Make choices about how they behave and experience the consequence of their choices
- Reflect on their thinking and learning processes, can self-assess the effectiveness of these processes and how they have impacted progress
- Understand that mistakes are critical to learning which helps learners to persist and cope with challenges as they arise
- Are motivated and engaged when they feel a sense of ownership over their learning

Teachers

- Describe the desired behaviours and progress towards goals to help learners manage their attention
- Explicitly teach self-regulation techniques and celebrate when positive behaviours are displayed
- Model being curious about their own learning and demonstrate how to use particular metacognitive strategies
- Explicitly provide learners with specific strategies such as problem solving, concept mapping, and thinking routines
- Provide support and scaffolding through self-questioning, learner-teacher communication, peer-to-peer collaboration and self-assessment
- Model and communicate that mistakes are an opportunity to progress learning
- Explicitly teach the language of metacognition and foster positive dispositions for learning

Reflective Questions

- How will I know what learners understand and are thinking about the learning goal?
- How will I help learners to recognise how they learn?
- How will I support learners to monitor their own learning progress?

Effect Size

Classroom discussion **0.82**

Self questioning **0.64**

Concept mapping **0.64**

Teaching problem solving **0.63**

Study skills **0.60**

Months Impact

Metacognition and self-regulation **+8**

Key practice on a page

Learners can understand the purpose and goals of learning through the development and use of clear learning intentions and success criteria which are informed by the curriculum standards and/or progressions, students' prior knowledge and interests.

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Learners

- Can explain or demonstrate what they are learning and the purpose of this learning
- Can articulate or demonstrate where they are in their learning, their learning goals, and what they need to do next
- Exercise a sense of purpose and responsibility for their own learning
- Regularly reflect on their learning progress against the intentions and goals

Teachers

- Design appropriate goals related to the curriculum standards to ensure access and equity for all learners
- Ensure learning intentions and success criteria are understood, visible and accessible throughout learning
- Work with individual learners to set personalised goals that guide learning
- Together with learners regularly reflect on progress against the intentions and goals

Reflective Questions

- How will I ensure a goal is about learning rather than doing?
- How will I know that learning intentions and goals are challenging whilst also appropriate and relevant?
- How will I support my learners to reflect on learning goals and their ongoing growth?
- How will I ensure the learning intentions and success criteria relate to the standards of the curriculum?

Effect Size

Teacher clarity **0.75**

Goals **0.56**

APST 3.1 Establish challenging learning goals

Key practice on a page

Learners and teachers are informed of progress and achievement through mutual and ongoing feedback. The purpose of feedback is to facilitate progress in learning. Teachers and peers can provide both formal and informal feedback. It should be timely, can be provided in many forms and should always include specific advice for learners on how to progress in their learning. Teachers use evidence and data of learning progress, including feedback from learners, to guide their practice and make adjustments to amplify their impact on learning.

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Learners

- See feedback as part of the learning process, with the purpose of progressing learning
- Understand what they need to do to progress learning based on the feedback they receive
- Are motivated to continually improve as learners
- Use feedback from teachers and peers to self-regulate their learning and build resilience to overcome challenges
- Give one another feedback to progress learning
- Provide feedback to teachers that informs adjustments in teaching to meet student needs

Teachers

- Facilitate and provide multiple means of feedback that enables and challenges learners to reflect on and refine their understanding
- Give and receive timely, specific feedback that acknowledges areas of achievement and areas for progress
- Provide opportunities for students to engage in feedback with their peers
- Use evidence and data of learning progress and achievement as a source of feedback on the impact of teaching practices
- Use data and feedback to guide their own learning to support ongoing professional growth

Reflective Questions

- How will I ensure that the feedback provided is about learning?
- How can I ensure feedback enables learners to grow and improve?
- How will I gather and respond to feedback on my teaching?

Effect Size

Feedback 0.73

Months Impact

Feedback +8

APST 5.2 Provide feedback to students on their learning

APST 5.4 Interpret student data

Key practice on a page

Learners are provided with deliberate opportunities to co-design, co-construct, collaborate and work together to develop agency, dispositions and skills to learn and share with peers, teachers and the community. This involves learners actively participating, negotiating and communicating.

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Learners

- Are actively involved in designing and constructing learning opportunities
- Develop shared goals, design questions to investigate and use processes to find solutions and problem solve
- Share wondering, prior knowledge and thinking through collaborative learning processes
- Take individual responsibility for participating and contributing constructively as part of a team
- Actively listen to others and are skilled at providing ideas, suggestions and feedback to one another and the teacher
- Take responsibility to reflect on and evaluate actions and their impact on others

Teachers

- Develop protocols with learners to build collaborative learning skills
- Actively facilitate opportunities for learners to share ideas and expertise, ensuring each learner's contribution is valued by other learners
- Explicitly teach the language of collaboration, such as "building on your idea", "I disagree because..."
- Ensure that diversity is captured for inclusive learning and student agency
- Check in with groups and provide scaffolds that support students to manage their own challenges

Reflective Questions

- How will I plan and design learning that encourages and responds to student voice and agency?
- How will I intentionally plan opportunities for students to collaborate in meaningful ways?
- How will I balance the individual learning dispositions and needs of all learners?
- How will I assess individual learners within a collaborative learning context?

Effect Size

Reciprocal teaching **0.74**

Cooperative learning in relation to individual work **0.59**

Cooperative learning in relation to competitive learning **0.54**

Small group learning **0.49**

Cooperative learning in relation to whole class instruction **0.41**

Months Impact

Collaborative learning **+5**

APST 3.3 Use teaching strategies

APST 4.1 Support student participation

Key practice on a page

Learners' curiosity can be activated, connections made and understanding developed and deepened through questioning. Questioning unfolds opportunities for learners to talk together and with the teacher, listen actively, discuss, negotiate, debate, express opinions and alternative views. Effective questioning yields immediate feedback on learner understanding and the impact of teaching on learning.

Teachers intentionally develop metacognition and self-regulation in learners

Teachers support learners to understand the intention, goals and indicators of learning

Teachers facilitate the sharing of feedback to progress learning

Teachers foster learners' agency and collaboration with peers, teachers, and the community

Teachers enable learners to create and challenge meaning through questioning

Learners

- Feel confident to ask questions, speculate, negotiate and debate
- Understand how different types of questions can identify, clarify, build knowledge and develop understanding
- Actively listen to understand others' ideas and perspectives
- Build on and respectfully challenge one another's ideas
- Make connections to prior knowledge and wondering to stimulate further questions

Teachers

- Explicitly use different types of questions to check for student understanding and to adjust instruction
- Ask questions that probe learners' thinking and prompt them to explain, explore and justify their responses
- Ask questions and respond to answers that acknowledge individual needs and encourage contributions
- Model acceptance and valuing of unusual or alternative perspectives
- Provide stimulus materials that challenge learners' ideas and encourage collaborative communication
- Intentionally engage learners in dialogue, continuously extending and deepening their thinking and refining their understanding
- Explicitly teach students to use questions as a way of making connections and deepening learning

Reflective Questions

- How will I ask questions that elicit a response from every student?
- How will I capture and assess the learning that a question and response can reveal to adjust my teaching?
- How will I use questions to challenge misconceptions and promote cognitive stretch?
- How will I support students to ask and respond to questions that extend their own and others' thinking?

Effect Size

Questioning **0.46**

Months Impact

Oral language interventions **+5**

Our key practices – further reading

Key Practice	Further Readings
Teachers intentionally develop metacognition and self-regulation in learners	<ul style="list-style-type: none"> Structural Learning, 2021, A Teacher's Guide to SOLO Taxonomy, https://www.structural-learning.com/post/what-is-solo-taxonomy Dweck, C 2017, Mindset: Changing the way you think to fulfil your potential, Little Brown Book Group, UK. Evidence for Learning 2019, Teaching and Learning Toolkit – Metacognition and Self Regulation https://evidenceforlearning.org.au/teaching-and-learning-toolkit/metacognition-and-self-regulation/ Evidence for Learning 2019, Guidance Report: Metacognition and Self Regulated Learning https://evidenceforlearning.org.au/guidance-reports/metacognition-and-selfregulated-learning/ Government of South Australia 2016, Develop Expert Learners: Teach Students How to Learn https://www.education.sa.gov.au/sites/default/files/tfel_framework_guide_3.1_teach_students_how_to_learn.pdf?acsf_files_redirect Ritchhart, R et al. 2011, Making Thinking Visible: How to promote engagement, understanding and independence for all learners, Jossey-Bass, San Francisco; California.
Teachers support learners to understand the intention, goals and indicators of learning	<ul style="list-style-type: none"> Australian Education Research Organisation, 2023, Introduction to multi-tiered system of supports, https://www.edresearch.edu.au/summaries-explainers/explainers/introduction-multi-tiered-system-supports Australian Institute for Teaching and School Leadership 2017, Learning Intentions and Success Criteria https://www.aitsl.edu.au/docs/default-source/feedback/aitsl-learning-intentions-and-success-criteria-strategy.pdf?sfvrsn=382dec3c_2 Education Services Australia, Assessment for Learning: Learning Intentions, https://www.assessmentforlearning.edu.au/professional_learning/learning_intentions/learning_intentions_landing_page.html Hattie, J 2009, Visible Learning: A synthesis of over 800 meta-analysis relating to achievement, Routledge; Abingdon; Oxford. Kirschner, P.A., & Hendrick, C. 2020, How learning happens: Seminal works in educational psychology and what they mean in practice, Routledge https://doi.org/10.4324/9780429061523 Marzano, R 2017, The New Art and Science of Teaching, Hawker Brownlow Education, Moorabbin; Victoria. Sweller, J. 2016, Working memory, long-term memory, and instructional design, Journal of Applied Research in Memory and Cognition, 5 (4) 360-367, https://doi.org/10.1016/j.jarmac.2015.12.002



Our key practices – further reading

<p>Teachers facilitate the sharing of feedback to progress learning</p>	<ul style="list-style-type: none">• Australian Institute for Teaching and School Leadership 2017, Feedback https://www.aitsl.edu.au/tools-resources/resource/feedback• Black, P and Wiliam D 1998, Assessment and Classroom Learning, Assessment in Education: Principles, Policy and Practice, vol. 5: pp.7-74.• Black, P and Wiliam D 2005, Lessons from around the world: how policies, politics and cultures constrain and afford assessment practices, The Curriculum Journal, vol.16, no.2: pp.249-261.• Evidence for Learning 2019, Teaching and Learning Toolkit - Feedback https://evidenceforlearning.org.au/teaching-and-learning-toolkit/feedback/• Hattie, J and Clarke, S 2018, Visible Learning Feedback, Routledge, Abingdon; Oxford.• Weinstein, Y., Madan, C. R., & Sumeracki, M. A., 2018, Teaching the science of learning, Cognitive research: Principles and Implications, 3(1), Article 2, https://cognitiveresearchjournal.springeropen.com/articles/10.1186/s41235-017-0087-y
<p>Teachers foster learners' agency and collaboration with peers, teachers, and the community</p>	<ul style="list-style-type: none">• Australian Institute for Teaching and School Leadership 2017, A collaborative learning space, https://www.aitsl.edu.au/tools-resources/resource/a-collaborative-learning-space-illustration-of-practice• Evidence for Learning 2019, Teaching and Learning Toolkit – Collaborative Learning https://evidenceforlearning.org.au/teaching-and-learning-toolkit/collaborative-learning/• Gillies, R and Boyle M 2010, Teachers reflections on cooperative learning: issues of implementation, Teaching and Teacher Education, vol. 24, no. 4, pp.39-55.• Government of South Australia 2016, Create safe conditions for rigorous learning: Build a community of learners, https://www.education.sa.gov.au/sites/default/files/domain_2_create_safe_conditions_for_rigorous_learning.pdf?acsf_files_redirect• McDonald, T 2019, Classroom management: Engaging students in learning, Oxford University Press.• Sarra, C., Spillman, D., Jackson, C., Davis, J., & Bray, J 2020, High-expectations relationships: A foundation for enacting high expectations in all Australian schools, The Australian Journal of Indigenous Education, 49(1), 32-45, https://doi.org/10.1017/jie.2018.10



Our key practices – further reading

Teachers enable learners to create and challenge meaning through questioning

- Australian Institute for Teaching and School Leadership 2017, Practical Techniques: Questioning, <https://www.aitsl.edu.au/docs/default-source/feedback/aitsl-strategies-questioning-a3.pdf>
- Evidence for Learning 2019, Teaching and Learning Toolkit – Oral Language Interventions <https://evidenceforlearning.org.au/teaching-and-learning-toolkit/oral-language-interventions/>
- Fiorella, L., & Mayer, R.E. 2016, Eight ways to promote generative learning, Educational Psychology Review, 28 (4), 717-741 <https://doi.org/10.1007/s10648-015-9348-9>
- Hattie, J 2009, Visible Learning: A synthesis of over 800 meta-analysis relating to achievement, Routledge; Abingdon; Oxford.
- Lemow, D 2015, Teach like a champion 2.0: 62 techniques that put students on the path to college, Jossey-Bass, San Francisco; California.
- Marzano, R 2017, The New Art and Science of Teaching, Hawker Brownlow Education, Moorabbin; Victoria.
- Wiliam, D 2011, Embedded Formative Assessment, Solution Tree Press, Bloomington; Indiana.



References

- Archer, AL and Hughes, CA 2011, *Explicit Instruction: Effective and Efficient Teaching*, The Guilford Press.
- Archer, AL and Hughes, C.A 2011, *Explicit Instruction: Effective and Efficient Teaching – Structure of an explicit lesson*, Jamie Clark, @XpatEducator, www.jamieleeclark.com
- Australian Council for Educational Research 2012, *National School Improvement Tool*, https://research.acer.edu.au/cgi/viewcontent.cgi?article=1019&context=tl_misc
- Australian Education Research Organisation 2024, *Explainer: Introduction to a multi-tiered system of supports* <https://www.edresearch.edu.au/sites/default/files/2024-02/introduction-multi-tiered-system-supports-aa.pdf>
- Australian Education Research Organisation 2023, *How students learn best*, <https://www.edresearch.edu.au/resources/how-students-learn-best>
- Australian Education Research Organisation 2023, *Teaching for how students learn: A model of learning and teaching* https://www.edresearch.edu.au/sites/default/files/2023-11/model-learning-teaching-aa_0.pdf
- Australian Government 2018, *Through Growth to Achievement: Report of the Review to Achieve Educational Excellence in Australian Schools (Gonski Report 2.0)*, https://docs.education.gov.au/system/files/doc/other/662684_tgta_accessible_final_0.pdf
- Australian Institute for Teaching and School Leadership 2017, *Australian Professional Standards for Teachers*, <https://www.aitsl.edu.au/teach/standards>
- Australian Institute for Teaching and School Leadership 2017, *Australian Professional Standard for Principals and the Leadership Profiles*, <https://www.aitsl.edu.au/lead-develop/understand-the-principal-standard>
- Beale, Jonathan 2020 January 14, *Tom Sherrington's division of Rosenshine's principles of instruction into strands*, <https://cirletoncollege.com/tom-sherringtons-division-of-rosenshines-principles-of-instruction-into-strands/>
- Coe, R et al. 2014, *What makes great teaching? Review of the underpinning research*, Sutton Trust, Durham University, UK, <https://www.suttontrust.com/wp-content/uploads/2014/10/What-Makes-Great-Teaching-REPORT.pdf>
- Deans for Impact 2015, *The Science of Learning*, Deans for Impact, Austin; Texas, https://deansforimpact.org/wp-content/uploads/2016/12/The_Science_of_Learning.pdf
- Dumont, H et al. 2012. *The Nature of Learning: Using Research to Inspire Practice*, Organisation for Economic Cooperation and Development, Paris.
- Evidence for Learning 2019, *The Teaching and Learning Toolkit*, <https://evidenceforlearning.org.au/the-toolkits/the-teaching-and-learning-toolkit/full-toolkit/>
- Goodwin, B 2019, *Student Learning That Works: How brain science informs a student learning model*, McRel International, Denver; Colorado.
- Hattie, J 2003, *Teachers Make a Difference, What is the research evidence?*, ACER Research Conference, Melbourne; Australia, https://research.acer.edu.au/research_conference_2003/4/
- Hattie, J 2009, *Visible Learning: A synthesis of over 800 meta-analysis related to achievement*, Routledge, Abingdon; Oxford.
- Hattie, J and Yates, G 2013, *Understanding Learning: Lessons for Learning, Teaching and Research*, ACER Research Conference, Melbourne; Australia, https://research.acer.edu.au/research_conference/RC2013/6august/10/
- Hubbell, E and Goodwin, B 2019, *Instructional Models: Doing the Right Things Right*, McRel International, Denver; Colorado.
- Macklin, P and Zbar, V 2017, *Driving School Improvement: A Practical Guide*, Australian Council for Educational Research, Melbourne; Australia.
- Marzano, R 2017, *The New Art and Science of Teaching*, Hawker Brownlow Education, Moorabin; Victoria.
- Martin, A J 2016, *Using Load Reduction Instruction (LRI) to boost motivation and engagement*, British Psychological Society, <https://mrbartonmaths.com/resourcesnew/8.%20Research/Motivation%20and%20Praise/Using%20Load%20Reduction%20Instruction%20%28LRI%29.pdf>
- Masters, G 2013 *Reforming Educational Assessment: Imperatives, principles and challenges*, Australian Education Review, vol. 57, <https://research.acer.edu.au/aer/12/>
- New South Wales Government Centre for Education Statistics and Evaluation, 2013, *Great Teaching, Inspired Learning: What does the evidence tell us about effective teaching*, <https://educationstandards.nsw.edu.au/wps/wcm/connect/09ec6efb-a231-4911-8a60-52cdd35eacf1/GTIL+CESE+Research+Report.pdf?MOD=AJPERES&CVID=>
- New South Wales Government Centre for Education Statistics and Evaluation, 2019, *General capabilities: A perspective from cognitive science*, <https://www.cese.nsw.gov.au/images/stories/PDF/General-capabilities.pdf>
- New South Wales Government Department of Education 2024, *Explicit teaching in NSW public schools*, <https://education.nsw.gov.au/content/dam/main-education/documents/teaching-and-learning/curriculum/explicit-teaching/explicit-teaching-in-nsw-public-schools.pdf>
- New Zealand Government Ministry for Education 2020, *Guide to Universal Design for Learning*, <https://www.inclusive.tki.org.nz/guides/universal-design-for-learning/>
- Organisation for Economic Cooperation and Development 2019, *OECD Future of Education and Skills 2030 Conceptual Learning Framework Concept Note: OECD Learning Compass 2030*, http://www.oecd.org/education/2030-project/teaching-and-learning/learning/learning-compass-2030/OECD_Learning_Compass_2030_concept_note.pdf
- Peddie, B., Kelly, M., Greengard, T., Whiting, C., and Richardson, S 2024, *Foundational classroom management resource handbook*, Australian Education Research Organisation, <https://www.edresearch.edu.au/guides-resources/practice-resources/classroom-management-handbook>
- Queensland Government 2015, *Explanation of terms: Age-appropriate pedagogies for the early years of schooling*, <https://earlychildhood.qld.gov.au/earlyYears/Documents/explanation-of-terms.pdf>
- Rosenshine, B 2012, *Principles of Instruction: Research-Based Strategies that All Teachers Should Know*, American Educator, vol. 36, no. 1, pp.12-19.
- Smith, J.L.M., Saez, L., and Doabler, C.T. 2016, *Using explicit and systematic instruction to support working memory*, TEACHING Exceptional Children, vol. 48 pp. 275-281.
- Timperley, H et al. 2014, *A framework for transforming learning in schools: Innovation and the spiral of inquiry*, Centre for Strategic Education Seminar Series Paper No. 234.
- Victorian Government 2018, *High Impact Teaching Strategies: Excellence in Teaching and Learning*, <https://www.education.vic.gov.au/Documents/school/teachers/support/high-impact-teaching-strategies.pdf>



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