AERO's submission to the Independent Review of Tasmania's Education System

October 2024

The Tasmanian Department for Education, Children and Young People should commit to implementing evidence-based practices in all schools to support all Tasmanian students to reach their full potential. This includes providing clear guidance to support the adoption of culturally responsive, evidence-based teaching practices in all classrooms and working collaboratively with schools and communities to ensure that students who are struggling or at risk of falling behind receive early, targeted support to catch up.

The Australian Education Research Organisation (AERO) is Australia's leading independent education evidence body. Its vision is for Australia to achieve excellence and equity in educational outcomes for all children and young people through effective use of evidence. In support of this vision, AERO:

- generates high-quality evidence
- presents high-quality evidence that is relevant and accessible
- encourages effective implementation of evidence in practice and policy.

AERO would like to thank the Tasmanian Government for the opportunity to provide a submission to the Independent Review of Tasmania's Education System in response to the Public Consultation Paper. This submission outlines the evidence-based practices that should underpin any reforms to Tasmania's education system, as well as key implementation considerations to ensure that system-led changes within schools are effective and sustainable.

The most effective and efficient way to strengthen supports and engagement for all students at all stages of their education is to improve teaching quality, which is the greatest in-school influence on student progress and achievement (AERO, 2023). This means that all schools should use evidence-based teaching practices in all classrooms, including explicit instruction, paired with the systematic provision of additional support for students who have fallen behind in their learning (Australian Government, 2023; de Bruin et al., 2023; Burns & Symington, 2002; Burns et al., 2005).

However, knowing what works for improving student outcomes and embedding it into practice can be difficult, with health science research estimating that it takes 17 years for what we 'know' about effective practice to become what we 'do' in common practice (Robinson et al., 2020). A deliberate and structured approach to implementation can help reduce this gap. The Tasmanian Department for Education, Children and Young People should support schools by providing guidance, resources

and clarity to teachers and leaders as they move through a phased implementation process of adopting evidence-based practices.

This submission makes the following 3 recommendations to ensure sustainable, long-term improvement in student outcomes across the Tasmanian education system:

1. Promote the systematic adoption of evidence-based teaching practices that align with the cognitive science behind how students learn.
2. Provide teachers and leaders with clear, actionable guidance, training and support to effectively implement evidence-based teaching practices and a multi-tiered system of supports in schools.
3. Commit to a coherent, system-wide and culturally responsive strategy to ensure implementation of evidence-based practices is staged, sustainable and scalable.

Evidence-based teaching practices

All students benefit from evidence-based teaching practices

Rigorous evidence demonstrates that there are evidence-based teaching practices that benefit all students, regardless of year level, subject and background (AERO, 2023). These practices align with the cognitive science behind how students learn through the process of acquiring, retaining, retrieving and consolidating knowledge.

AERO acknowledges that the Tasmanian Department for Education, Children and Young People (the Department) has aligned its new Pedagogical Framework with the cognitive processes that occur during learning, and the evidence-based teaching practices that have been proven to make a difference to student learning outcomes. AERO also acknowledges the Department's efforts to align reading instruction with structured literacy through its Lifting Literacy initiative, supporting the development of strong foundational reading skills for all students. This alignment to the research recognises that learning is most effective when students can connect new information to prior knowledge.

Students learn by transferring information from working memory, which has limited capacity, to long-term memory, where it is stored and used to build complex mental models. Effective teaching practices such as explicit instruction and guided practice help to manage cognitive load, ensuring that new information is introduced in small, manageable chunks. Students retain learning when they are provided with timely feedback, opportunities for practice and meaningful tasks that allow them to draw on their growing mental models. Guidance is gradually reduced as students build stronger connections to knowledge in long-term memory, fostering independence and mastery in applying their learning.

AERO has drawn on empirical evidence to develop a model of learning and teaching (the model) that maps the process of how students learn against the most effective and efficient teaching practices that support learning:

- To align with the evidence that learning is a change in long-term memory, teachers develop a teaching and learning plan for the knowledge students will acquire.
- To align with the evidence that students process limited amounts of new information, teachers manage the cognitive load of learning tasks.
- To align with the evidence on how students develop and demonstrate mastery, teachers maximise retention, consolidation and application of learning.
- To align with the evidence that students are actively engaged when learning, teachers foster the conditions of a learning-focused environment.

The model acknowledges culturally responsive practice as central to creating culturally safe learning environments and meeting students' needs. A culturally responsive and supportive environment, where teachers address the needs of all students, helps create the focus and engagement necessary for successful learning to occur. In culturally safe environments, students are better equipped to direct their attention, process new information and transfer it to long-term memory, enabling them to solve complex problems and generate new ideas over time.

The model also acknowledges that some students may require additional time and guidance to learn due to variations in background knowledge, skills or cognitive abilities. By applying evidence-based teaching practices, teachers can adjust their instruction to meet the specific needs of each student, taking into account factors like prior content knowledge, English proficiency and cultural background. This approach allows for schools to tailor support, whether through adjustments in the intensity or duration of instruction, additional scaffolding, or targeted interventions beyond whole-class teaching. Providing teachers with training and support to implement these practices ensures optimal learning for all students.

Supporting the implementation of effective teaching practices

Implementation is the bridge between knowing what works for improving student outcomes and embedding it into practice. While research underscores the importance of maintaining fidelity so that evidence-based practices drive impact, there is limited specificity in the literature about the best ways to mobilise these practices in schools and the role of system-level support. Specificity is crucial because schools operate in diverse contexts, each with unique challenges, resources and student needs. Without detailed guidance, schools may struggle to adopt these practices effectively leading to inconsistent application and diminished impact.

Teachers and school leaders need clear, actionable guidance to effectively implement evidence-based teaching practices in culturally responsive ways, ensuring that all students, regardless of background, can achieve educational success. AERO has drawn on a strong body of implementation research to develop a deliberate and structured approach to support schools to engage in effective implementation (AERO, 2024). This approach begins with school context (where), includes an evidence-based practice (what) and relies on 4 implementation components (how).

Figure 1: A deliberate and structured approach to the implementation of evidence-based practices

1. **Where: School context** - Schools are the site of implementation, so the process must be tailored to each school's unique context. This includes addressing barriers, selecting appropriate strategies and identifying measures to monitor outcomes.

2. **What: Evidence-based practice** - Evidence-based practices are essential for effective implementation, offering proven strategies grounded in rigorous research that work across diverse student contexts and demographics.

3. **How: Implementation components** - The 4 components of a deliberate and structured approach to implementation are interconnected and equally important, working together to ensure success: use a staged approach, address enablers and barriers, select implementation strategies and monitor implementation outcomes.

We know that implementation is not one-size-fits all. Schools are responsible for adapting system-led policies and strategies to their unique contexts, so any advice or changes must be implemented in a way that reflects the local context, is culturally responsive and is sustainable. Insights from implementation science show that factors such as demographics, staffing, school readiness and resourcing influence how schools adopt new practices. Supporting schools to assess the fit and feasibility of these changes—including timelines and priorities—is critical for ensuring credibility, buy-in and, ultimately, success.

Implementation is a staged process, not a one-off event. Recognising that schools are the site of implementation and that systems *support* schools to implement, the Department should work with schools to ensure effective teaching practices are

implemented in a staged and sustainable way. The Department should prioritise clear guidance, resources and ongoing support for teachers and leaders to effectively implement evidence-based teaching practices in their schools. A deliberate, staged and culturally responsive approach to implementing evidence-based practices is an investment in future improvement that will ensure Tasmanian schools can sustainably improve teaching and learning outcomes for all students.

Multi-tiered system of supports

Tiered support can address learning gaps for students who are struggling or at risk of falling behind

Identifying and supporting students who are struggling or at risk of falling behind is crucial for achieving equity and excellence in Tasmania's education system. Research emphasises the importance of early screening and intervention, using evidence-based, targeted approaches to ensure all children can experience success and positive dispositions towards learning from the outset (Goss, P. & Sonnemann, J., 2016). Early intervention helps to prevent learning gaps from widening over time, as students who lack strong foundational skills by Year 3 often struggle to catch up. Maintaining learning gains as students progress through school can also be challenging (Williams et al., 2023).

AERO's research has identified the multi-tiered system of supports (MTSS) framework as an effective framework for organising the support required to address learning gaps across all ages and diverse contexts (de Bruin et al., 2023).

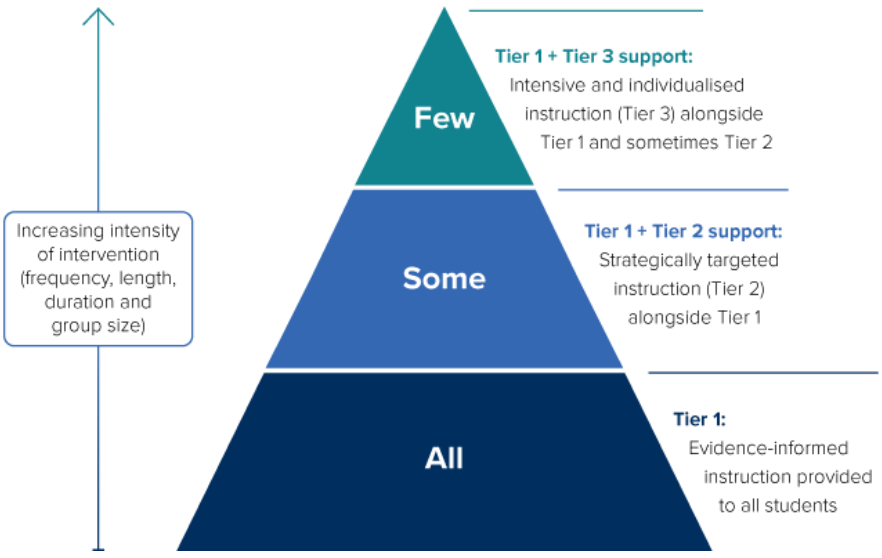

Figure 2: How tiers of support work in an MTSS framework

Within the MTSS framework, schools implement universal evidence-based practices, identify students who need additional support, and monitor the impact of

interventions. While the mechanisms for learning remain the same for all students, those facing persistent challenges receive more intensive, frequent and sustained support. To ensure timely and effective support, it is essential that schools and teachers are equipped with the training and resources to identify students who need further assistance early and provide targeted, evidence-based interventions through small group (Tier 2) or more intensive and individualised (Tier 3) instruction to help them get back on track. AERO acknowledges the work that the Department is currently doing to support schools to adopt an MTSS framework, helping to ensure that schools are equipped to provide a continuum of evidence-based interventions that cater to the needs of all students.

Supporting schools to implement an MTSS framework

MTSS is a coordinated system of supports across a sliding scale of increasingly intensive tiers. For MTSS to be effective, it is crucial to establish a strong foundation at Tier 1 instruction. This involves developing a whole-school vision, using an evidence-based instructional model and ensuring staff buy-in for the collection and use of data to inform decisions and practices.

Essentially, schools need to meet 5 requirements for MTSS to be successful:

1. High-quality, **evidence-based instruction** across all tiers of intervention is delivered in all classrooms.
2. **Universal screening assessments** are delivered early to identify students who need additional support
3. **Diagnostic assessments** are delivered for students who need additional support and interventions are aligned to the skill gaps identified.
4. **Data-based decisions** inform the levels of support students receive, for example, whether they require a higher level of targeted support or have met learning goals and support can be reduced.
5. **Monitoring tools** are used to track progress and ensure that interventions are having the intended impact.

The first part of this submission on evidence-based teaching practices has covered the first requirement of an MTSS framework. The following guidance addresses the remaining components of assessment, intervention and monitoring.

Collection and analysis of assessment data

Within the MTSS framework, 3 main types of assessment data inform instruction and intervention: universal screening, diagnostic assessment and progress monitoring.

Universal screening assessments are domain-specific assessments that should be quick and easily administered, either individually or in groups, over a short period. While teachers should be able to conduct these assessments without advanced qualifications, specialist guidance from experts like speech pathologists or psychologists may support the interpretation of results to ensure their validity and reliability.

To alleviate resource pressure on schools and ensure consistency in data collection, the Department could provide centralised, high-quality assessments designed to screen competence in foundational skills, along with comprehensive training for test administration. Triangulated with other sources, such as teacher judgements and standardised assessments, data from universal screening would support decisions about which students require further intervention.

Diagnostic assessments should be administered one-on-one or in small groups by trained staff to pinpoint specific skills requiring intervention for students who fall below benchmarks based on universal screening. The Department could assist with this process by offering training and providing access to specialist staff who can conduct and interpret diagnostic assessments.

The Department can also collaborate with schools to establish in-school teams responsible for data analysis, identifying students in need of additional support, planning interventions and monitoring progress. Schools may require additional resourcing to form these teams, particularly in areas like professional development or the provision of specialist expertise.

Specialised teaching and progress monitoring

Evidence suggests that Tier 2 support is most effective when provided through small group tuition, tailored to address specific areas of student need. For optimal results, targeted interventions should be delivered frequently (e.g., 3 or more times per week) to groups no larger than 6 students, with sessions lasting 20 minutes to one hour over a defined period, such as a school term (Education Endowment Foundation, 2021).

Tier 3 interventions should be more targeted and intensive, focusing on addressing individual learning needs and gaps. These interventions should increase in frequency and/or duration, with reduced group sizes (sometimes to one-on-one) and incorporate more frequent progress monitoring to ensure effectiveness. Monitoring progress through brief, skill-specific evaluations helps track student responses to instruction and intervention.

Both Tier 2 and Tier 3 interventions should be led by staff who are trained to deliver evidence-based interventions. Each intervention should be time-limited with clear goals, and defined entry and exit criteria so that it is evident when a student no longer requires additional support in an area. Ongoing progress monitoring is essential for both tiers, enabling staff to assess the effectiveness of interventions and make adjustments as needed to improve student learning.

To ensure effective implementation of Tiers 2 and 3 across all schools, the Department could provide a centrally funded intervention program. This program would promote consistency and system-wide expertise by offering:

- short assessments to identify specific skill gaps
- in-school instructional support, including on-site coaching, modelling of effective practices, and needs-based professional development

- training resources to equip teachers with the skills needed to oversee intervention processes and make informed decisions.

By providing these resources, the Department can ensure that schools are equipped to deliver high-quality interventions and monitor progress effectively for students who require additional support.

A system-wide strategy

Schools are more likely to achieve success in implementing a system initiative when they are supported by a coherent, well-planned system strategy. This strategy should prioritise clear, consistent messaging about what practices schools should implement, the type of system supports, and the working relationship it will have with schools to foster the desired practice change.

While schools are the primary agents of change, it is the Department's role to provide guidance, resources and clarity as they move through a phased implementation process. For example, the Department could work with schools to ensure system-wide implementation by supporting them to:

- establish a shared understanding of desired implementation outcomes and assessment needs
- address barriers to implementation
- conduct an inventory of existing programs and resources
- adjust timetables to accommodate interventions
- organise an implementation team
- engage students and the wider school community to secure support.

A system-wide strategy should also incorporate a robust and responsive framework to foster culturally safe environments, extending beyond the classroom to encompass all facets of system activities including policy development, program selection and implementation guidance. Culturally safe learning environments are foundational to meeting the learning needs and aspirations of First Nations students and benefit all students (Australian Institute for Teaching and School Leadership, 2022). Embedding a cultural responsiveness framework within a system-wide strategy would ensure that educators and policymakers are held accountable for putting culturally responsive practices into action throughout the system. The Department must prioritise the integration of this approach into policy, processes and programs to ensure the creation of culturally safe learning environments for all students and staff, prior to the implementation of any education strategy or initiative.

By committing to a system-wide strategy that champions the systematic provision of culturally responsive, evidence-based teaching practices and additional support for students who are struggling or at risk of falling behind, the Department will drive sustainable, long-term improvement in student outcomes across the Tasmanian education system.

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