

# School Improvement Tool

A summary of the  
underpinning research

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The *National School Improvement Tool* was developed by the Australian Council for Educational Research for the Commonwealth Department of Education, Employment and Workplace Relations based on a series of national consultations conducted during 2012. A literature review was conducted to inform the second iteration of the tool with international reach, renamed as *School Improvement Tool*. This document provides an overview of the research evidence that has been captured in the literature review.

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# Introduction

In 2023, ACER published the School Improvement Tool<sup>®</sup> (SIT), the second iteration of the National School Improvement Tool<sup>®</sup> (NSIT). A comprehensive review of international research was undertaken to inform the development of the SIT which consists of nine inter-related domains that describe the practices of highly effective schools and leaders.

School leaders play a crucial role in facilitating and sustaining improvement. They influence a wide range of practices. These practices, when combined, have the potential to significantly improve student outcomes. However, leaders cannot achieve sustained improvement on their own. Staff who have an unshakable belief that every student can learn successfully, commit to meeting the individual needs of their learners through the effective implementation of curriculum, pedagogy, and assessment, and who are deeply committed to their professional growth, make a positive difference to student outcomes.

This document provides a summary of research evidence that underpins each of the nine domains of the SIT. Acknowledging interdependencies between domains, it presents a narrative of key evidence and research-based considerations for each domain. Further detail about the evidence for each domain can be found in the *School Improvement Tool Literature Review*. To enhance readability, this document uses minimal references—a complete reference list is provided in the full *School Improvement Tool Literature Review*.

# Driving an explicit improvement agenda

The importance of school leader roles in setting a strategic direction for school improvement has long been recognised. It can be complex work because schools are busy places, often with multiple and sometimes competing priorities. Improvement agendas may be set with the best intentions, but can result in energies being focused on strategies that are not context-appropriate, not grounded in research evidence, or not well understood or sustained. As a consequence, they may have little impact on improving outcomes for learners. Research shows that schools are well positioned to improve learning, engagement, and wellbeing outcomes for their learners when:

- improvement plans are based on a systematic analysis and discussion of a range of relevant data and
- leaders consistently drive the implementation of these plans, maintaining a laser-like focus.

There is also compelling evidence in relation to the importance of setting and communicating high expectations across the school. In particular, high expectations for ongoing improvements in teaching and learning, and high expectations for all students regardless of their individual circumstances or backgrounds, are powerful drivers for school improvement. Crucial to school improvement is a collective belief that what teachers do makes a difference to students and that setting high expectations for students will lead to improved outcomes.

Formal goal setting is a powerful tool for school improvement. Goals that are challenging, yet achievable, clear and measurable, against long- and short-term timelines have the most impact.

Research consistently highlights the criticality of coherence and coordination in school improvement planning. As challenging as it is, when school improvement plans align with strategically identified directions and focus on long-term sustainable solutions rather than quick fixes, they can lead to substantial improvements in student outcomes. Coherence means that the focus of improvement-focused activities is consistent across the school. This requires aligning individual and organisational needs and ensuring the improvement agenda is explicit. An improvement agenda is explicit and coherent when; it lives and breathes in a school, it is evident in the school's strategic communications and key documentation, informs the planning work of all stakeholder teams, remains a key focus of discussion in meetings, guides priorities for professional growth of staff and, is well resourced (Timperley et al., 2020).

Fundamental coherence in school-wide improvement efforts requires the building of a strong and optimistic commitment from all staff, students, and the wider community to the explicit improvement agenda. Teacher involvement in planning is particularly important to create consensus about, and commitment to, school improvement strategies. Several studies have also identified the importance of involving students, families, and community members in school improvement planning.

The identification, articulation and systematic implementation of evidence-informed strategies are also essential for school improvement. These strategies need to target areas for improvement, as identified through analysis and discussion of data (Domain 2). It is also important to specify individual and collective roles and responsibilities in implementing strategies, as well as timelines and required resources.

Finally, monitoring, evaluation and adjustment is a critical component of the school improvement cycle. This involves continuous monitoring of progress towards articulated goals and targets to evaluate the effectiveness of school improvement strategies at the individual, class, cohort, or school levels. Evaluation and monitoring may be formal or informal and serve to inform targeted and ongoing school improvement strategies.

## DOMAIN 2 Analysing and discussing data

There is compelling research evidence in relation to the effective use of data for school improvement. Studies show that the impact of analysing and discussing a range of data for school improvement is maximised when it is implemented as a school-wide practice. This means that critical examination of data underpins decision-making at all levels of the school. At the whole-school level, using multiple sources of evidence assists leaders in taking appropriate action. It also helps them to monitor progress rigorously towards identified goals, and adjust strategies and practices as required. At a classroom level, data use involves gathering and interpreting evidence about student wellbeing and engagement, where students are in the learning, and how they are progressing. Analysis and interpretation of these data enable teachers to determine the most effective teaching strategies to best meet learners' needs.

Most importantly, it is how data are used that ultimately determines the impact on school improvement. There can be a lot of dusty data in schools – that is data that are collected regularly without a clear purpose, or alignment with school-wide strategies that enable effective use of data sets to enhance student learning, engagement, and wellbeing. Essentially, it is not the amount of data a school collects that makes a difference, it is the way in which they are used purposefully to gain a deeper understanding of strengths and areas for improvement. Using data effectively can save precious time in schools by ensuring that energies are being focused where they are really needed.

Research shows that school leaders play a major role in shaping the conditions for purposeful data use. Effective leaders champion the use of data to guide the work of the school. They develop and implement school-wide plans for the systematic collection, analysis, and discussion of key data sets. Research highlights the importance of professional learning to build all staff skills over time in analysing and interpreting data. Leaders play an essential role in modelling, scaffolding, monitoring, and assisting others in using data effectively.

Valuable data to inform school improvement can be gathered from students and families using a range of strategies and tools. Students and families can help school staff to better understand learning through their eyes and collaborate with teachers and leaders in designing tools for data collection, collecting data, analysing data, and taking action.

Data about student learning, engagement and wellbeing needs to be used in a way that is informative for students themselves. Ideally, students should routinely engage in discussions with peers and staff to reflect on their progress using a range of evidence to enhance their learning.

Drawing on a range of different data to monitor and inform improvement—beyond readily available assessment data—enables the school community to build a comprehensive picture of student learning, engagement, and wellbeing across the school. At a classroom level, using a range of evidence supports teachers in understanding the whole story of each student. Schools may consider data in relation to attendance levels, student wellbeing and attitudes, perceptions of key stakeholder groups, school processes and demographics. Effective data use requires triangulation of data from these different sources to gain a clearer understanding of starting points for improvement.

A potential barrier to effective school-wide use of data is a lack of access to collected evidence, particularly for teachers. Well-integrated mechanisms that enable centralisation of key data sets, routine data entry, access, complex analyses, and subsequent discussions are critical in helping teachers identify and monitor student learning needs and provide targeted instruction.

Leaders can enable the effective use of data by all staff by creating favourable conditions and setting expectations. Research emphasises the importance of school leader facilitation of data use, for example, by allocating sufficient time and collaboratively engaging in data use with staff. Collaborative discussion and joint critical evaluation of a range of data sets, including discussions with different stakeholders, are positively associated with student achievement outcomes. When making sense of data, it is important to use them to not only identify problems, but also identify possible causes of problems. If this step is missed, actions taken may not result in improvements because different causes require different interventions. Research also emphasises that the core focus of data use needs to be on long-term improvements (growth over time) rather than improving short-term performance indicators to meet accountability requirements.

Effective data use requires staff to link analysis and discussion of data to their individual practices and inform meaningful improvement actions. Close examination of student data can be a powerful opportunity for professional learning, particularly when data reveal information that might contradict leaders and teachers' pre-existing beliefs. Ultimately, the impact of data use on school improvement depends on the extent to which it informs follow-up actions. In the classroom, this means informing instructional decisions.

Evaluation and monitoring informed by data, as mentioned in Domain 1, also play an important role in school improvement. Data use can result in improved student learning outcomes when it becomes part of a cycle of reflective inquiry. Several models for the cyclical use of data are evident in the literature. A final step in the cycle is evaluation, which includes determining whether the goal has been achieved, and importantly, how practices have changed as a result of actions taken. Evaluation evidence can then be used to inform follow-up action as part of a new inquiry cycle.



# DOMAIN 3 Promoting a culture of learning

School culture is a key factor that can enable or hinder school improvement. Various studies highlight the important role principals play in shaping a school's culture. Principals develop key 'markers' such as vision and mission statements, decide on the nature of collaboration in the school and shape the physical environment. Effective principals also build supportive structures and cultivate trusting and respectful relationships across the school community. They ensure a dual focus on student and staff learning and wellbeing underpinned by a culture of continuous improvement.

As described in Domain 1, research overwhelmingly demonstrates the critical role leaders play in fostering a school-wide culture of high expectations for student learning. When students underachieve, this is often caused by a lack of challenge. Research consistently highlights the interrelatedness of student achievement outcomes and school culture, referring to the academic culture of the school, a culture of academic optimism or academic press.

Fundamental to promoting a culture of learning is the concept of collective efficacy, that is, building a collective belief that what teachers do makes a difference to students and is critical to successful learning. This requires a culture where staff take collective responsibility for student learning and have established high levels of trust to work closely in enhancing practice and addressing identified improvement needs.

In addition to high expectations for student learning, it is also critical to set high expectations for continuous improvement in teaching. This requires leaders to shape a productive learning culture for staff, which enables teachers both individually and collectively. In such cultures, leaders promote and facilitate professional learning, encourage initiative, innovation, and risk taking, strengthen collaboration, and provide opportunities for stimulating professional conversations.

Student achievement is maximised when there is a strong sense of community in a school, underpinned by positive, caring and mutually respectful relationships amongst all stakeholder groups. Several studies specifically highlight the importance of good relationships between staff and students, referring to the importance of strong teacher-student relationships for student engagement and motivation. Research shows that students tend to be more successful in schools where teachers demonstrate they care about students and make clear that they are there to help them realise their potential. These positive relationships coupled with opportunities for student voice can build a strong sense of belonging for learners. When students feel connected to their school, it can be a powerful protective factor for their health, wellbeing, and engagement with education.

Consistent with the importance of mutually respectful, caring, and positive relationships across the entire school community, research highlights the significance of inclusive and harmonious interactions. Respectful communications should not only occur within the school, but also extend to communications with the wider community.

Numerous studies identify the significance of establishing and maintaining an orderly learning environment. Leaders play an important role in working closely with the school community to establish school-wide expectations in relation to student behaviour. Recent international research promotes whole-school preventative approaches, in which positive student behaviour is fostered and student success is celebrated.

The importance of considering families as partners in student learning and implementing strategies to strengthen home-school connections is also recognised in the literature. High expectations for learning need to be shared so that they can be met or exceeded. This includes the development of a shared language to talk about learning both at school and home. Productive and regular communication that is culturally appropriate is valuable in building trust and partnering in learning.

Research also emphasises the role of promoting a culture that appreciates and values all students – their individual characteristics, their cultural backgrounds, and their languages. Schools may use language and signage in inclusive ways, develop curricula that are locally relevant, and build staff cultural competence to meet the needs of diverse learners.

The creation of a school culture that considers the promotion of student wellbeing as the collective responsibility of all members of the school community can have a positive impact on learning. Studies identify the importance of supportive school processes and structures for not only student wellbeing but also to address staff wellbeing.

# Targeting school resources

Research shows, that beyond a minimum resourcing baseline, how schools use financial, human, material and physical resources in a targeted way is far more important than the amount of resources available. For example, one study demonstrated that increased funding alone will not necessarily bring about school improvement. Rather, schools need to have targeted, evidence-informed school-wide strategies to improve the quality of teaching and learning, challenge low expectations, and intentionally allocate available resources to support such work.

Strategically and efficiently managing resources is a critical aspect of leadership in schools. This requires the systematic identification of student learning and wellbeing needs based on analysis of a range of data, to determine how to deploy staff and allocate other resources in ways that will best address these needs. Optimal resource allocations need to be differentiated to enable equitable access to the full curriculum for all students, regardless of their needs, background, or the school's location. This includes allocating resources to implement school-wide approaches for students requiring additional specialist support. It is important to note that, internationally, schools have varying degrees of autonomy in determining how resources are allocated. Further, schools may not always have access to resources that would best enable them to achieve their objectives. Effective planning is paramount in ensuring that available resources are allocated strategically to benefit students.

Importantly, constantly changing student needs require that resource allocations be flexible and creative. Flexibility enables schools to plan and implement the curriculum effectively. Implications of differentiated teaching and learning requires careful consideration of access to resources, time, and space. To respond to emerging needs, schools may use flexible student grouping, monitor, and make revisions to the scheduling of lessons, leverage community resources, or deploy and redeploy staff as required.

Teachers have been described in the literature as “one of schools’ most important resources” (Loeb et al., 2012, p. 271). Three key findings relevant to teachers were distilled from research evidence, highlighting the importance of the following:

- 1** Investing in staff professional growth. Simply making time and resources available for professional learning is not enough to drive professional growth.
- 2** Aligning resources to support effective teaching practices. To ensure resource allocations support teacher practice, these need to be dedicated to pedagogically sound purposes.
- 3** Deploying teachers and other staff in ways that effectively meets the needs of students. Research highlights the need to take into consideration teachers’ strengths, expertise, aspirations, and interests in determining their deployment across the school. More effective schools strategically assign teachers to groups of students where they can have maximum impact.

Research also identifies the need to optimise staff and school time. Effective schools find ways to preserve and privilege teaching and learning time. Time spent on quality learning hinges upon the optimal use of instructional time through effective pedagogical practices. Strategic allocation of time is also vital to enable effective collaboration between staff, discussed in Domains 5 and 8.

The strategic allocation of resources can also ensure that the school's physical environment supports student learning. Effective school leaders budget for, and manage, facilities to ensure the work of teachers in classrooms and other staff is optimised. This includes targeted funding for technology. When used meaningfully, technology can provide many affordances for teaching in a way that is engaging for students.

DOMAIN  
5

# Building an expert teaching team

There is overwhelming evidence that teacher quality is significantly associated with student outcomes. This highlights the need for leaders to implement a cohesive plan for professional learning to build a highly reflective and expert teaching team. Intentionally fostering the collective capability of staff using professional learning that is evidence-informed and encourages collaboration, reflection, and feedback, is fundamental to improving student outcomes.

Impactful professional learning results in improved teacher knowledge and skills, and subsequently improved teaching practices. Professional learning is most effective when it aligns with identified students' needs, gaps in teacher knowledge and skills, as well as whole-school goals. When offered as a stand-alone opportunity, disconnected from teachers' contexts, it often fails to result in improved outcomes.

School leaders play an important role in not just encouraging and facilitating professional learning, but also leading and modelling where appropriate. This may involve collaborative planning for professional learning, active participation in joint professional learning, modelling examples of practice, or supporting teachers in their day-to-day practice through strategies such as teacher observation and improvement-focused feedback. Successful leaders also deliberately target teacher leadership capability development by providing multiple opportunities to practice in an authentic context, supported by regular feedback, mentoring and coaching.

The significance of teachers' deep disciplinary content knowledge for effective teaching is noted in many studies. In addition, research emphasises the need for strong pedagogical knowledge. Effective teaching requires in-depth understandings of how students learn in disciplines, particularly the developmental or learning trajectories that students typically follow. These findings point to the fundamental importance of professional learning to deepen disciplinary and pedagogical knowledge. Research also highlights the value of professional learning in teacher capability to use assessment for identifying how students are progressing. When coupled with a deep understanding of what progress in learning looks like, such insights can enable teachers to target their teaching to best support learners.

Research also demonstrates the positive effect of teacher collaboration on continuous improvement in teaching and learning. Fullan and Hargreaves (2016) posit that the development of a professional culture of collaboration is pivotal to individual and collective learning of teachers. Providing opportunities for staff to collaborate fosters collective efficacy which, as discussed earlier, has been linked with improved student outcomes. Importantly, "collaboration is not an end itself" (p. 13); the nature of the collaboration makes the difference. Schools often dedicate time for teachers to work together in teams in structured meetings, sometimes referred to as professional learning communities (PLCs) in the literature. Planned carefully, PLCs can be highly impactful. However, without clear objectives and the necessary support and guidance of leaders, these get-togethers can be viewed by teachers as a waste of time or yield little impact. Collaboration does not need to be formalised to be effective. It can also take the form of informal discussions, coaching and mentoring, peer observation and feedback, modelling practice and learning from others within and beyond the school. In effective schools, teachers often learn from one another in collaboration through, for example, moderation of assessment and work samples, planning curriculum implementation, sharing of expertise, and co-constructing teaching practice. Teachers may also engage in professional learning aligned to the school's priorities or identified student learning needs through collective professional inquiries in teams across the school.

Staff can also build their expertise by networking beyond the school, in online and face to face interactions. Joining professional organisations, active membership in key committees, conference attendance, the sharing of literature, and sharing of expertise across schools supports continuous professional growth.

A wide range of research evidence demonstrates the value of schools recruiting (where possible) and retaining high quality teachers. Replacing ineffective teachers, when professional learning and support have not resulted in improved practice, is considered an important strategy for turning around underperforming schools.

Finally, and yet significantly, fostering a culture of continuous improvement and building a highly reflective team are paramount to school improvement. Effective teachers are reflective practitioners. They draw on multiple sources of evidence to reflect on the impact of their teaching. For example, teachers can draw on feedback from their peers, school leaders, students, as well as considering student assessment data.

DOMAIN  
6

# Leading systematic curriculum implementation

A curriculum is a plan which outlines a mapped learning trajectory. It can be thought of as an agreement “on why, what, how, when and where to educate and learn” (Voogt et al., 2018, p. 7). Curricula are highly context-specific, reflecting political and cultural values. Curricula have different layers, ranging from high-level plans at a system level, to more detailed and contextualised plans at the school level. Ultimately, how curricula are implemented within schools and classrooms determines student learning experiences.

Numerous studies in relation to curriculum content highlight the importance of a strong focus on building disciplinary knowledge and skills, as well as broader capabilities and dispositions. To adequately prepare students for the many challenges they may face during their lives, researchers argue that 21<sup>st</sup> century curricula need to be flexible and comprehensive. Ideally, such curricula place a key focus on deep thinking, reasoning, and desirable dispositions, for example by focusing on critical thinking, problem-solving skills, agency, and capacity for transformation. Furthermore, making connections across curriculum areas can make learning more meaningful for students.

Several themes for curriculum implementation were identified from the research. These include school-wide consistency in implementation practices, collaboration in curriculum design and implementation, consultation with stakeholder groups, and for students, time, and opportunity to learn. Given the importance of school-wide consistency, it is not surprising that school leaders play a critical role in leading systematic curriculum implementation. Leaders support systematic implementation by coordinating the curriculum across years of schooling to ensure coherence and sufficient opportunity to learn. Leading systematic curriculum implementation also involves ensuring alignment of the curriculum with school-wide agendas, sourcing and facilitating professional learning, supporting collaboration in planning for and reviewing curriculum, and clearly communicating plans to relevant stakeholders.

Teachers play a pivotal role in curriculum implementation. Successful implementation requires staff to have a shared understanding of, as well as working within, their school's curriculum expectations. Focused teacher collaboration supports the enactment of these shared expectations. Collaboration can take many forms, such as collaboratively planning lessons, assessing, and moderating student work samples, jointly analysing a range of student data, and jointly reviewing and refining the curriculum.

How teachers interpret the curriculum directly impacts on their classroom practices, and hence student learning experiences. For teachers to monitor student progress and plan teaching accordingly, it is important that they are supported to thoroughly understand curriculum standards and success criteria.

In addition, a comprehensive understanding of what learning trajectories look like across the curriculum as well the hurdles students are likely to encounter are critical to successful curriculum implementation and assessment of student progress. Frequent assessment of student learning using a range of strategies generates extensive feedback to guide teacher instruction based on evidence of learning progress.

Internationally, there is variation in the extent to which schools and teachers have responsibility and autonomy in curricular decision-making within a system level-framework. Higher levels of autonomy enable leaders and teachers to flexibly adapt learning to meet contextual and students' needs. Even in systems with centrally regulated curricula, teachers still need to use their professional judgements when implementing the curriculum. Curriculum implementation can be optimised when it is agile, and is continuously adjusted based on students' backgrounds, strengths and needs, interests and readiness to learn. Regular monitoring of

student progress in relation to curricular outcomes is important so that teachers can flexibly determine how, and at what pace, students will move through the curriculum.

Schools also play an important role in ensuring that curricula are locally relevant. Ideally, learning experiences are meaningful and resonate with students' day-to-day life experiences. Teachers may tailor curriculum content to be inclusive of students' various cultural backgrounds and afford students opportunity for agency in their learning, all of which can greatly enhance their motivation to learn.

Given the multi-layered nature of curriculum, it is not surprising that research highlights the value of involving a range of stakeholders in curricular planning. The roles of school leaders and teachers have already been discussed. Community stakeholders may provide valuable insights to assist localising curricula. Further, involving students in curriculum design can support their engagement in learning. Similarly, clearly communicating curriculum expectations supports family involvement in their child's schooling. Studies also highlight the importance of sharing evidence of progress in learning over time. This includes reporting point-in-time progress against curriculum intentions, as well as regular communication with students themselves and their families about progress and next steps.

# Differentiating teaching and learning

The importance of differentiating teaching and learning is well documented in the education literature. However, it is also widely recognised that enacting differentiation is complex. In addition, there are varying perspectives on, and definitions of, differentiation. Fundamentally, identifying and responding to the needs of individual students is the driving force for differentiated teaching and learning. The critical feature of successful differentiation is the extent to which teachers can match adaptations to student needs. The various interpretations of differentiated teaching and learning in research are likely to translate into variations in practice. It is therefore crucial for leaders, teachers, and other staff to engage in rich dialogues to reach a school-wide shared understanding that informs differentiation practices.

As identified in previous domains, there is compelling evidence in relation to setting high expectations for all students. Specifically, research highlights the powerful impact of teachers' beliefs that every student is capable of successful learning. The core focus of differentiation needs to be on ensuring all students make adequate progress, irrespective of their starting points or rates of progress. In differentiating teaching and learning, the emphasis is on learning progress as opposed to ability.

Understanding where students are in their learning underpins effective differentiation of teaching and learning. When teachers use in-depth analyses of a range of assessment evidence to differentiate their teaching, they can have considerable impact on raising student achievement outcomes. Evidence of progress can be gathered using formal and informal assessments, including information from structured classroom interactions. Feedback from students is another valuable source of evidence. By examining a range of evidence, teachers can consider students' strengths, as well as gaps in their learning or any misconceptions, so as to better target their teaching. Effective differentiation takes the form of ongoing cycles of monitoring of student progress and needs, and subsequently adjusting instruction to maximise student learning.

Differentiated teaching and learning can help ensure that learning experiences are accessible to all students, regardless of their levels of (dis)advantage or need. It can also foster engagement in learning by catering to students' interests, connecting learning to their day-to-day experiences and varying cultural backgrounds. Numerous studies point to the need for every student to experience the right amount of challenge in their learning for engagement and achievement. This requires establishing appropriately challenging learning intentions and designing learning experiences that respond to the full breadth of student needs. In practice, there can be a tendency to implement differentiated teaching and learning only for students who are falling behind, rather than maximising each learner's potential.

In a differentiated classroom, scaffolding and supportive interactions and mutual feedback interactions play a key role in facilitating student progress. There is also some evidence that technology can be used to differentiate effectively. Some researchers have also highlighted that strong interpersonal relationships between students and teachers are necessary for teachers to respond appropriately to student needs.

Given the challenges in catering to individual student needs in whole-classroom contexts, various studies have focused on student grouping practices. It is evident that the quality of differentiation by teachers within and between groups is more important than the nature of grouping mechanisms (e.g., ability grouping). Students may benefit from being grouped homogeneously or heterogeneously, provided teachers maintain high expectations for all students, and groups are flexible, enabling students to move when evidence suggests they require increased or reduced levels of support.

It is also important to note that some students will require comprehensive interventions by classroom teachers and other identified staff to access the curriculum and be successful in their learning. The perspectives of these students themselves, as well as their families and relevant professional staff, should shape necessary adjustments and inform decisions about appropriate interventions.



The significance of student active participation in their learning is well documented. Students can play an active role in assessing their own learning, monitoring their progress, and setting challenging yet achievable goals for the next steps in learning. This requires equipping students with the necessary knowledge and skills to effectively reflect on their progress. One foundational piece of knowledge is an understanding of curriculum standards and success criteria. Teachers can help students understand these, so they can use relevant criteria to monitor their own progress and direct their learning.



# Implementing effective pedagogical practices

How teachers teach really matters. There is a strong evidence base in relation to the impact of highly effective pedagogical practices on student outcomes, identified in some studies as the most important factor for improving student learning.

Research evidence about which pedagogical practices are most effective is somewhat ambiguous. Evidence from meta-analyses suggests that various pedagogical practices can produce educationally powerful effects. Effective strategies include problem-based learning, cooperative learning, direct instruction, and peer tutoring. Specifically, research evidence suggests that explicit/direct instruction is one of the most effective pedagogical practices, although it is often erroneously confused with transmissive and superficial teaching. There is also considerable research supporting the effectiveness of a range of other teaching strategies, for example, play-based learning, student-centred learning and grouping students in different ways for different purposes. These have been explored more fully in the School Improvement Tool Literature Review.

Selecting appropriate pedagogical practices from a broad repertoire that are appropriate to the teaching and learning focus and context are key. Ideally, pedagogy is informed by theory, evidence, and collaborative teacher inquiry about which classroom practices work for which learners. Theories of effective pedagogy need to be specific enough to guide pedagogical action but not so specific that they are employed uncritically and without regard to learners themselves: “Trying to reduce great teaching to constituent elements is that the whole may be greater than the sum of its parts. The choices a teacher makes in orchestrating their skills may be an essential part of what makes them effective” (Coe et al., 2014, p. 10). Pedagogical practices also need to be fit for purpose and align with curricular objectives and teaching strategies outlined in curriculum frameworks.

Given the powerful impact of pedagogical practices on student outcomes, it is imperative that school staff are deeply committed to continuously improving them. Leaders play a critical role in promoting the use of evidence-informed pedagogical practices by keeping abreast of relevant research, clearly articulating their expectations, and building a highly reflective learning culture for staff. Research highlights the importance of leaders ensuring school-wide pedagogical consistency.

Leaders also play a vital role in supporting teachers’ day-to-day work. Effective leaders enable teachers to continuously improve their practice by providing ongoing research informed feedback on teachers’ practices, facilitating mentoring, coaching, and networking opportunities, as well as encouraging and supporting further study.

As discussed in Domain 5, quality collaboration is vital in continuously building school-wide expertise. Collaboration within and across teaching teams, including teacher inquiry into effective classroom practices, supports continuous improvement in pedagogical practice. Such collaborations may take place within schools or may extend beyond the school gate.

Teachers need to critically evaluate research evidence when implementing teaching strategies, to avoid falling into the trap of quick fixes or using ineffective practices. The shift in emphases in curricula from a content-dense focus to what are commonly referred to as 21st century competencies has resulted in calls for new pedagogies. Such pedagogies need to be fit for purpose to drive learning in a wide range of complex contexts. Research evidence suggests that effective 21st century pedagogies are highly personalised, collaborative and capitalise on opportunities for informal learning. Fullan and Hargreaves (2016) specifically stress the need for pedagogies that activate students, fuel a passion for learning, and purposefully use digital technologies.

Various studies also highlight the importance of teachers drawing connections between key principles, concepts, or big ideas to promote deep and meaningful learning. Effective pedagogical practices require a focus on in-depth as well as surface features of learning. Helping students connect new material to their existing knowledge and skills helps promote deeper levels of learning, for example by producing new insights or making sense of information in

a different way. Meaningful use of questioning stimulates learning by eliciting student conceptions and ideas. Questioning can also foster peer discussions to challenge ideas and encourage creative thinking.

Importantly, research evidence consistently highlights the positive impact of teachers setting, communicating and rigorously actioning high expectations for student learning. As discussed in Domain 7, goal setting is an effective strategy for setting high expectations. Students need to have a clear understanding of individual and class goals, what it means to achieve these (success criteria), how they are progressing in relation to identified goals, and what their next steps are. Active student involvement in improvement-focused feedback processes is essential in driving student learning. The effects of feedback can be maximised when there is a two-way flow of seeking, providing, and acting on feedback by both students and teachers. Teachers play an important role in gradually fostering student ownership of their learning through their feedback practices. Effective pedagogical practices build learners' beliefs in their capability to learn successfully and helps them persist when they face challenges.

Expert teachers draw upon a wide range of evidence-informed teaching strategies, masterfully, and often intuitively, selecting the most appropriate pedagogical approach for each teaching and learning moment. Overall, the research identifies the need for teachers to use a range of effective pedagogical approaches, to continuously evaluate the effectiveness of their teaching drawing on a range of evidence and make enhancements based on this evidence.



# Building school- community partnerships

School-community partnerships can contribute to, and have considerable impact on, student outcomes. Such partnerships may come to fruition when schools, families, and a range of other stakeholders in the local and wider community work closely together, capitalising on one another's resources and expertise. Schools that strategically develop strong and sustainable partnerships with families and the community can leverage improved learning opportunities for students, as well as enhancing student engagement and wellbeing. Such partnerships are vital in adequately preparing students for life beyond school: "support from those beyond the school gates is an essential part of preparing learners for the twenty-first century" (Lonsdale & Anderson, 2012, p. 1).

As discussed in Domain 3, one of the most critical partnerships a school can develop is with students' families. The term 'families' has been broadly interpreted to be inclusive of the possible range of students' caregivers and significant others. Research shows evidence for the impact of various practices to foster school-family partnerships on student engagement and wellbeing, and therefore successful learning. These include recognising families as integral members of the school community, working to ensure that practices are inclusive of all families, as well as helping them to positively engage with their child's learning.

Schools can also forge relationships and partnerships with a wide range of organisations, businesses, other educational institutions, and service providers. Some school-community engagements may be in the form of one-off events, whilst other connections grow into more sophisticated and sustained partnerships. Genuine partnerships often evolve over several years and tend to include formal agreements. Sometimes, a wide range of school relationships and partnerships develop, due to staff and family connections. The purpose, impact, and outcomes of such connections may not always be clear and therefore not warrant ongoing time and resource investments. When partnerships are long standing, it can be challenging to evaluate their effectiveness to determine whether they should continue. The primary motivation in sustaining connections and forging new partnerships should be improving learning, engagement, and wellbeing for young people. It is therefore vital that potential community partners are identified based on their capacity to contribute to improve student outcomes.

Decisions about brokering partnerships are ideally based on analyses of needs to support the development of a clear, strategic purpose that is agreed to by all parties. School-community partnerships provide an opportunity to strive towards shared goals, and may benefit either or both parties, depending on their nature. School-community partnerships are not always easy to source, develop or maintain, and take time to come to fruition. It is therefore critical to consider carefully with whom and how to build partnerships, so these can really make a difference.

Lonsdale and Anderson (2012) describe some key benefits for schools resulting from strong partnerships, which relate to "social, intellectual, financial, psychological and performance" (p. 2). Social benefits can include stronger support networks and services, better understanding of student community contexts, and improved connections between students, their families, the wider community, and the school.

Intellectual benefits are gained through the sharing of expertise to improve knowledge. Schools might also obtain financial or in-kind support to realise their vision. Partners can provide cost-efficient resources. In recognising the important role schools play in supporting student wellbeing, integrated student support services have become more prevalent in recent years. When established as a key partnership, these services can ensure students in need are provided with adequate resources and supports.

In addition to the benefits for schools and students, school-community partnerships can also have a positive impact on the community. In many cases, schools are, or have the potential to be, the heart of a community. This is the case when schools connect with local groups, share resources, and offer expertise to support

learning in the community. For example, Milgate (2016) reported that schools can contribute to the social capital of the community, which may become “a more nurturing and thriving place to live” (p. 200). Schools may also provide opportunities for capability building in the community, for example by offering opportunities for leadership and employment. Contributing to teaching and learning can also provide meaningful opportunities for the empowerment of communities. This reaching out to community can also offer further opportunities for young people to connect meaningfully with their local and wider community.

As well as a clearly stated purpose, foundational to a successful and impactful partnership is the development of widely understood roles and responsibilities for all parties. Involved parties will need to actively plan for the implementation of key initiatives, monitor progress and evaluate the effectiveness of such initiatives. Collaborative decision-making through ongoing and sustained communication is key. Authentic and robust dialogue depends on positive relationships between parties that are built over time. Furthermore, research also identifies the importance of allocating adequate resources to ensure the effectiveness of partnerships.

Over time, partnerships become embedded in the culture of both the school community and partner organisations. Research highlights the significant role school principals play in managing relationships with community stakeholders, ensuring that impactful partnerships are productive and sustainable.

# Conclusion

It is well recognised that systematic and continuous school improvement is complex. The full *School Improvement Tool Literature Review* provides a more detailed synthesis of what is known in relation to the nine domains. Whilst we do not claim to have reviewed all relevant research, the application of principles of saturation (Saunders et al., 2018) gives us confidence that the *School Improvement Tool Literature Review* and this evidence summary provide a robust picture of the relevant research base. High performing schools sustain action across multiple domains bringing about changes to practice to improve outcomes for young people. Substantial and long-term school improvement is possible with strong and strategic leadership and committed staff who focus on the most important factors, and work systematically to embed best practice until it becomes a way of working.

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A complete reference list is provided in the full *School Improvement Tool Literature Review*.

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