

**MONASH
Q PROJECT**

“USING EVIDENCE BETTER”

QUALITY USE OF RESEARCH EVIDENCE FRAMEWORK

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This document presents the Q Project's conceptual framework to define and elaborate what 'quality use of research evidence' might mean in education. It is intended as a resource for anyone who is interested in improving the use of research evidence within and across all levels of schools and school systems. It is based on analysis and synthesis of 112 relevant research publications from the health, social care, policy, and education sectors, coupled with regular feedback from project partners and stakeholders.

INTRODUCTION

- There is growing emphasis on the use of research evidence in education, but discussions have tended to focus on the quality of the evidence rather than the quality of the use.
- This document outlines a Quality Use of Research Evidence Framework that seeks to define and elaborate what 'quality use of research evidence' might mean in relation to education.
- The framework is based on findings from the first phase of the [Monash Q Project](#)¹, a five-year study seeking to understand and improve the use of research evidence in Australian schools.

QUALITY USE OF RESEARCH EVIDENCE FRAMEWORK

- Quality use of research evidence in education is defined as 'the thoughtful engagement with and implementation of appropriate research evidence, supported by a blend of individual and organisational enabling components within a complex system'.
- At the centre of the framework are two core components that highlight the need for research evidence to be appropriate and for the engagement and implementation to be thoughtful.
- Quality use of research evidence, though, also depends on three individual-level enabling components (skillsets, mindsets and relationships), three organisational-level enabling components (leadership, culture and infrastructure); and broader system-level influences.

NEXT STEPS

- The ideas presented here can be seen as an invitation to reflect on our current approaches to using research evidence and our capacity to improve the use of evidence at the individual, organisational and system levels.
- The development of the framework will continue through school-based investigations across four states in Australia, the integration of illustrations of practice, and the development of professional learning resources to build educators' capacity to use research evidence well.
- Readers are encouraged to connect with the Q Project and be part of strategic dialogue and system-level change around research evidence use in Australian education.

There are growing expectations internationally that schools and school systems will use research evidence to underpin and inform their improvement efforts (e.g., British Educational Research Association [BERA], 2014; Nelson & Campbell, 2019; Cain, 2019). Within Australia, there have been similar calls for the development of an evidence-based approach and a research-rich teaching profession (Australian Productivity Commission, 2016, White et al., 2018).

These kinds of developments raise important questions about what it means to use research evidence well in education. Improved evidence use in education requires clarity about not only what counts as quality evidence, but also what counts as quality use. To date, there has been wide-ranging debate about the former (see, for example, Nutley et al. 2013), but very little dialogue about the latter.

Against this backdrop, this document outlines a Quality Use of Research Evidence Framework for education. It seeks to help define and elaborate what 'quality use of research evidence' might mean in relation to education. The framework is intended as a resource for anyone who is interested in improving the use of research evidence within and across all levels of schools and school systems. This could include teachers, school and system leaders, teacher educators, policy-makers, researchers and research brokers.

The ideas presented here are based on findings from the first phase of the [Monash Q Project](#)², a five-year study seeking to understand and improve the use of research evidence in Australian schools. The Q Project is a partnership between Monash University and the Paul Ramsay Foundation, and involves close collaboration with school leaders, teachers, policy-makers, evidence brokers, researchers and other key stakeholders across Australia.

What is outlined here is a conceptual framework, based on analysis and synthesis of relevant international research from the health, social care, policy, and education sectors. This process involved a systematic review of the literature to develop an understanding of quality evidence use in each of the sectors, followed by thematic analysis to identify similarities and differences between the four sectors as the basis for the development of a quality use framework for education (see Appendix). The framework development process also involved regular sharing of successive versions of the framework with project partners and stakeholders.

Following this short introduction, this document starts with an overview of quality evidence use as whole (Section 2). It then provides information about its different components – first the core components (Section 3), and then the individual-level enabling components (Section 4), the organisational-level enabling components (Section 5), and finally the system-level influences (Section 6). The concluding section outlines next steps in relation to the further development and refinement of the framework through school-based empirical research to better understand what using research evidence well looks like and involves in different school contexts.

Alongside this Quality Use of Research Evidence Framework, there is a [Q Project Discussion Paper](#)³ that explores further the process of working towards high-quality use of research evidence in Australian education.

monash.edu/education/research/projects/qproject²

monash.edu/education/research/projects/qproject/publications³

2. QUALITY USE OF RESEARCH EVIDENCE IN EDUCATION

Quality use of research evidence in education can be characterised as:

Thoughtful engagement and implementation of appropriate research evidence, supported by a blend of individual and organisational enabling components within a complex system.

THIS DEFINITION SEES QUALITY RESEARCH EVIDENCE USE AS:

- comprising two **core components** (appropriate research evidence and thoughtful engagement and implementation);
- being supported by three **individual-level enabling components** (skillsets, mindsets, relationships), and three **organisational-level enabling components** (leadership, culture, infrastructure); and
- being influenced by the wider **complex education system**.

What we outline here is a conceptual framework, in the sense that it has not yet been empirically tested or validated. As described later (Section 7), the next step for this work will be school-based empirical investigations to better understand what using research evidence well looks like and involves in different school contexts, and how the components interact. This process will enable further refinement and elaboration of the framework.

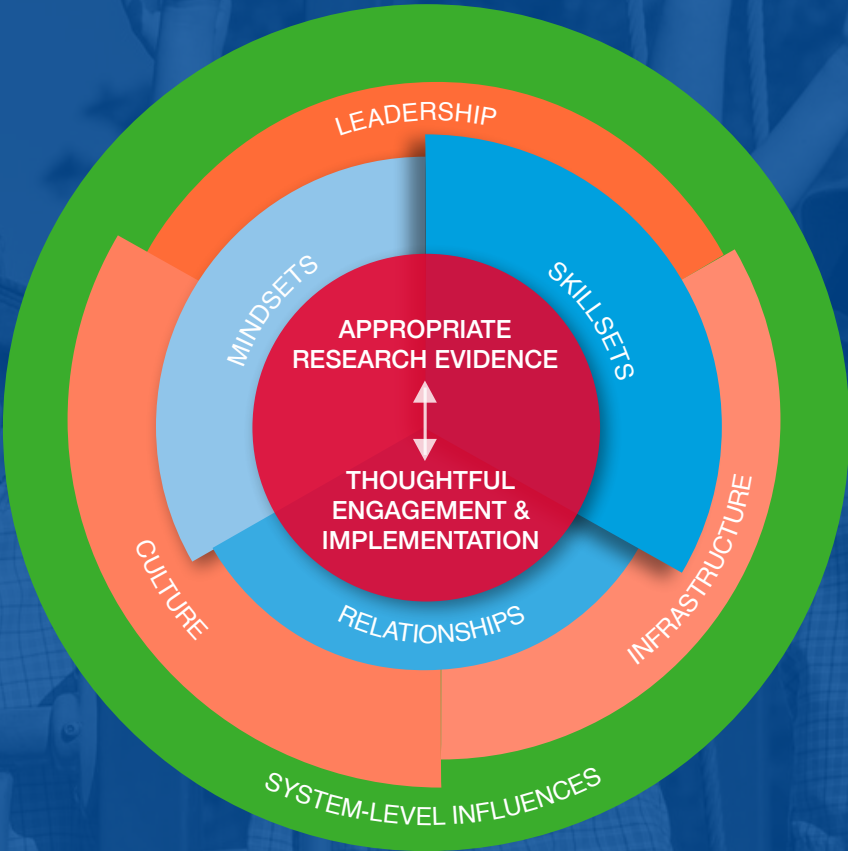
The ideas presented here are concerned with the use of a particular type of evidence, namely research evidence.

By research evidence, we mean evidence generated through systematic studies undertaken by universities or research organisations and reported in books, reports, articles, research summaries, training courses or events (Nelson et al., 2017).

By ‘use’, we mean the process of actively engaging with and drawing on research evidence to inform, change, and improve decision making and practice (Coldwell et al., 2017).

QUALITY USE OF RESEARCH EVIDENCE FRAMEWORK

Quality use of research evidence in education is defined as...
the thoughtful engagement with and implementation of appropriate research evidence, supported by a blend of individual and organisational enabling components within a complex system.



CORE COMPONENTS	ENABLING COMPONENTS - INDIVIDUAL LEVEL	ENABLING COMPONENTS - ORGANISATIONAL LEVEL	SYSTEM-LEVEL INFLUENCES
APPROPRIATE RESEARCH EVIDENCE The need for research evidence to be not only methodologically rigorous, but also appropriate for the educational issue, the context and intended use.	SKILLSETS The knowledge and capabilities that are required to thoughtfully engage with and implement appropriate research evidence.	LEADERSHIP The organisational vision, commitments and role models that support thoughtful engagement with and implementation of appropriate research evidence.	The complex interactions and inter-dependencies across the education sector to support thoughtful engagement with and implementation of appropriate research evidence.
THOUGHTFUL ENGAGEMENT AND IMPLEMENTATION Critical engagement with the research evidence, shared deliberation about its meaning and effective integration of aspects of the evidence within practice.	MINDSETS The dispositions, attitudes and values that are required to thoughtfully engage with and implement appropriate research evidence.	CULTURE The organisational ethos, values and norms that support thoughtful engagement with and implementation of appropriate research evidence.	
	RELATIONSHIPS The interpersonal processes and connections that are required to thoughtfully engage with and implement appropriate research evidence.	INFRASTRUCTURE The organisational structures, resources and processes that support thoughtful engagement with and implementation of appropriate research evidence.	

3. CORE COMPONENTS

APPROPRIATE RESEARCH EVIDENCE AND THOUGHTFUL ENGAGEMENT AND IMPLEMENTATION

At the centre of our visual representation are two aspirations – for the research evidence to be appropriate and for the engagement and implementation to be thoughtful. It is important to stress that these two core components are highly inter-dependent in the sense that deciding on what is appropriate research evidence will depend on thoughtful engagement with the evidence, and engaging and implementing thoughtfully will depend on the research evidence being appropriate.

APPROPRIATE RESEARCH EVIDENCE

WHAT IS IT ABOUT?

This component is about: the need for research evidence to be not only methodologically rigorous, but also appropriate for the educational issue, the context and the intended use.

WHY IS IT IMPORTANT?

This component is important because:

- evidence quality is not only about research rigour but also “depends on what we want to know, why we want to know it and how we envisage that evidence being used” (Nutley et al., 2013, p. 6);
- evidence needs to be “relevant to the work of the participants in the particular level of the system using it” (Timperley & Earl, 2009, p. 122);
- there is a need to avoid situations where educational decisions are made using evidence that is available, rather than evidence that is appropriate (Earl & Timperley, 2009); and
- evidence needs to include both internal research (locally generated) and external research (externally generated) (BERA, 2014; Brown & Greany, 2018; Nelson & Campbell, 2019; Tripney et al., 2018).

WHAT DOES IT INVOLVE?

This component involves:

- understanding the strengths and weaknesses of different forms of research evidence (Stoll et al., 2018a) and methodologies (Spencer et al., 2012);
- questioning how well the best available research evidence relates to or is applicable to a specific context (e.g., to the problem, the decision, the students, the desired outcome) and has the highest degree of certainty (Spencer et al., 2012);
- reflecting on the timing of the evidence with respect to the problem (Farley-Ripple et al., 2018), its implementation, and if the evidence is still relevant to the context (Boaz & Nutley, 2019); and
- understanding the potential and practicality of the best available evidence to make a difference to teaching and learning (Stoll et al., 2018a).

THOUGHTFUL ENGAGEMENT AND IMPLEMENTATION

WHAT IS IT ABOUT?

This component is about: critical engagement with the research evidence, shared deliberation about its meaning and effective integration of aspects of the evidence within practice.

WHY IS IT IMPORTANT?

This component is important because:

- research evidence “does not speak for itself” and so educators must actively “interpret and make meaning of it in order to use it” (Coburn, 2009, p. 71);
- research evidence does not replace professional expertise, rather using evidence involves integrating “professional expertise with the best external evidence from research” (Sharples, 2013, p. 7);
- social interaction around evidence can help identify “assumptions and contribute to the development of shared understanding” (Coburn, 2009, p. 83); and
- the single biggest reason programmes do not work is due to poor implementation (EEF, 2019).

WHAT DOES IT INVOLVE?

This component involves:

- constantly questioning assumptions about the evidence within the context of practice (Brown & Greany, 2018; Earl, 2015);
- educators combining “their understanding of school context and existing effective practice with any new perspectives [...] evidence provides” (Brown & Rogers, 2015, p. 77);
- using research “discerningly to inform [teacher’s] own practice and that of others” (Evans et al., 2017, p. 404);
- working collaboratively in professional learning communities, networks and partnerships to contextualise evidence and create new knowledge (Brown, 2015; Brown & Greany, 2018; Godfrey, 2019; Greany & Maxwell, 2017; Park, 2018);
- understanding “implementation as a process, not an event” (Sharples et al., 2019, p. 6);
- understanding the level of teachers’ motivation (Mincu, 2014) and confidence (Evans et al., 2017) to implement reform; and
- working to support staff, solve problems, and adapt strategies over time (Sharples et al., 2019).



4. ENABLING COMPONENTS (INDIVIDUAL-LEVEL)

SKILLSETS, MINDSETS AND RELATIONSHIPS

It will be clear from what has been said about the core components that high-quality research evidence use is a complex undertaking that needs to be supported by enabling components. The framework organises these enabling components into individual and organisation-level components, while acknowledging their interconnections with one another and across the wider education system. To begin, the individual-level components include particular skillsets, mindsets and relationships.

SKILLSETS

WHAT IS IT ABOUT?

This component is about: the knowledge and capabilities that are required to thoughtfully engage with and implement appropriate research evidence.

WHY IS IT IMPORTANT?

This component is important because:

- using evidence is a skilled practice where practitioners need to be confident and knowledgeable about judging the value and quality of the evidence, and thinking and talking about its meaning (Earl & Timperley, 2009; Brown & Greany, 2018);
- using evidence demands capabilities such as “generating ideas, challenging assumptions, testing hypotheses, formulating plans, monitoring progress, making adjustments, and rethinking a situation to stimulate and foster innovative solutions to real problems” (Earl, 2015, p. 149-150); and
- productive use of evidence is “hard because [it] requires more than just adding evidence to the conversation” (Earl & Timperley, 2009, p. 3).

WHAT DOES IT INVOLVE?

This component involves:

- being able to access research, assess the quality of research evidence and understand research approaches and methods (e.g., sampling, statistics) (Brown & Greany, 2018; Campbell & Levin, 2013; Davies, 1999; Earl, 2015; Nelson & O’Beirne, 2014; Stoll et al., 2018a);
- the ability “to judiciously use, apply and develop research as an integral part of one’s teaching” (Evans et al., 2017, p. 404);
- informally experimenting, testing out and trialing new approaches (Coldwell et al., 2017); and
- engaging in productive conversations where practitioners integrate explicit and tacit knowledge in context to advance understanding and solve problems (Earl & Timperley, 2009).

MINDSETS

WHAT IS IT ABOUT?

This component is about: the dispositions, attitudes and values that are required to thoughtfully engage with and implement appropriate research evidence.

WHY IS IT IMPORTANT?

This component is important because:

- working with evidence productively requires not only technical know-how but also “an inquiry habit of mind”, that is “the disposition to be open to a range of interpretations” (Earl & Timperley, 2009, p. 4);
- any efforts to inform and change practice need to acknowledge that practitioners “work from a foundation of often unchallenged assumptions, beliefs, and prejudices” (Earl, 2015, p. 149);
- evidence use in schools is impacted by teachers’ beliefs and attitudes about evidence and their motivation to use it (BERA, 2014; Dyssegaard et al., 2017; Nelson & Campbell, 2019; Nelson & O’Beirne, 2014; Park, 2018; Tripney et al., 2018); and
- using evidence is not simply a technical activity; it is influenced by personal and professional values and beliefs (Nelson & Campbell, 2017).

WHAT DOES IT INVOLVE?

This component involves:

- having an “evidence mindset” where teachers’ have a belief that using evidence can support their own, self-directed development and improve their teaching (Stoll et al., 2018a, p. 7);
- understanding how personal bias can influence how professionals access and use information (Evans et al., 2017) and make decisions (Brown & Greany, 2018);
- reflecting on and critically challenging existing beliefs and practices (Sharples et al., 2019, Parr & Timperley, 2008); and
- valuing the need to develop deep understanding, reserve judgement, tolerate ambiguity, and take a range of perspectives (Earl & Timperley, 2009).

RELATIONSHIPS

WHAT IS IT ABOUT?

This component is about: the interpersonal processes and connections that are required to thoughtfully engage with and implement appropriate research evidence.

WHY IS IT IMPORTANT?

This component is important because:

- conversations about evidence require the development of interpersonal skills that make it possible to move “beyond superficial talk to exploring deeper meanings” (Timperley & Earl, 2009, p. 124);
- using evidence is not an isolated, individual activity, but requires “communication, collaboration and interactions through networks within and beyond the school” (Godfrey, 2019, p. 209);
- engaging with evidence involves trust, particularly having trusted colleagues to develop a deep understanding of the evidence and consider appropriate instructional, structural or policy changes (Finnigan & Daly, 2014, p. 182); and
- external research evidence “only leads to sustained change if there is time for informed debate and teachers can see the impact in practice” (Coldwell et al., 2017, p. 28).

WHAT DOES IT INVOLVE?

This component involves:

- recognising the importance of working with other professionals to sharpen the operational meaning of evidence-based strategies, and determine how and when to use them with one’s own students (Hargreaves & Fullan, 2012, p. 52);
- viewing and supporting evidence use as a social process that requires collective learning and responsibility (Earl, 2015) along with genuine and structured collaboration within and across schools (Greaney & Maxwell, 2017; Park, 2018);
- networking within schools and beyond the school (Godfrey, 2019) and across the broader community, to provide opportunities to build knowledge over time and allow for a deeper understanding (Bryk et al., 2011); and
- effectively mobilising and combining research knowledge with other professional knowledge through school collaborations, networks and partnerships (Godfrey, 2019).

5. ENABLING COMPONENTS (ORGANISATIONAL-LEVEL)

LEADERSHIP, CULTURE AND INFRASTRUCTURE

Extending beyond the more individual-level focus on skillsets, mindsets and relationships, quality evidence use also requires organisational-level contexts (e.g., school, department, institution) with supportive leadership, culture and infrastructure.

LEADERSHIP

WHAT IS IT ABOUT?

This component is about: the organisational vision, commitments and role models that support thoughtful engagement with and implementation of appropriate research evidence.

WHY IS IT IMPORTANT?

This component is important because:

- leaders have a key role in promoting the vision for a research-engaged school, including the promotion of the values and the provision of resources and structures for “sustained and meaningful research use to become a reality” (Brown & Greany, 2018, p. 124);
- senior leaders play a key role in research-engaged schools by “acting as intermediaries and facilitators of access to, engagement with and use of research evidence for staff in their schools” (Coldwell, et al., 2017, p. 7);
- evidence use and implementation are sustained through shared leadership models (Dyssegaard et al., 2017), and developing a research-based culture involves distributing leadership (Cain, 2019); and
- leaders are influential not only in supporting others to use evidence, but also in modelling research engagement through their own outlooks and actions (Godfrey & Handscomb, 2019).

WHAT DOES IT INVOLVE?

This component involves:

- endorsing evidence use through school policy and planning documents (e.g., goals, vision, strategic plan) (Brown & Greany, 2018; Stoll et al, 2017; Tripney et al, 2018), and the provision of resources (e.g., time, funds, training) to support research engagement (EEF, 2019; Nelson & Campbell 2019);
- creating a trusting learning environment that enables staff to innovate (Godfrey, 2019; Nelson & Campbell 2019; Sharples et al., 2019), and valuing, promoting, sharing, and supporting evidence-led teaching amongst and across teams (Stoll et al., 2018b);
- understanding staff attitudes to research engagement: “who is supportive, who is ambivalent and who is resistant” (Creaby et al., 2017, p. 6);
- supporting discussions around research evidence (Coldwell, et al., 2017; Stoll et al., 2018b), using research to prompt dialogue around key issues (Brown & Greany, 2018), and using phrases such as, ‘What does the evidence show?’ (Coldwell, et al., 2017; Stoll et al., 2018b);
- providing open and collaborative learning opportunities (Nelson & Campbell 2019), and ensuring that evidence ‘permeates’ formal and informal conversations about teaching and learning, and how it impacts practice and pupil outcomes (Stoll et al., 2018b);
- supporting specific, research-informed professional learning (Dyssegaard et al, 2017; Stoll et al., 2018b; Tripney et al., 2018), including training and mentoring for early career teachers (Evans et al., 2017);
- designating a ‘go to’ staff member to access and collate research on relevant topics, present summaries and support enquiry projects (Stoll et al., 2018b); and
- modelling practices such as considering a range of perspectives, collecting relevant data and evidence from numerous and diverse sources, continually exploring new ways to solve problems, and supporting local practice change and improvement (Brown & Greany, 2018; Mincu, 2014; Stoll et al., 2018b).

WHAT IS IT ABOUT?

This component is about: the organisational ethos, values and norms that support thoughtful engagement with and implementation of appropriate research evidence.

WHY IS IT IMPORTANT?

This component is important because:

- “the main barriers to knowledge use in the public sector are not at the level of individual resistance but originated in an institutional culture that does not foster learning” (Hemsley-Brown & Sharp, 2003, p. 460);
- engaging with and using evidence are dependent on organisational learning and enquiry values, and cycles of inquiry and improvement through professional learning communities (Brown & Greany, 2018; Godfrey, 2019); and
- evidence use needs to be a cultural norm (Brown & Greany, 2018) that is embedded within a school’s “outlook, systems and activity” (Handscomb & MacBeath, 2003, p. 10).

WHAT DOES IT INVOLVE?

This component involves:

- making efforts to integrate research evidence into all aspects of the school’s work as part of an ethos of continual improvement and reflection (Coldwell et al., 2017);
- promoting research use within whole-school policy and planning documents (e.g., goals, vision, strategic plan) (Brown & Greany, 2018; Stoll et al., 2018b; Tripney et al., 2018);
- a shift in “teachers’ beliefs about the value of systematically collected evidence, and in professional norms and discourse around the consideration of such evidence” (Parr & Timperley, 2008, p. 58);
- engaging in a “deliberate, strategic and developmental approach toward fostering evidence-informed practices and cultures across all staff” (Brown & Greany, 2018, p. 118); and
- linking research use to self-improvement systems (Brown, 2015; Brown & Greany, 2018; Coldwell et al., 2017a; Creaby et al., 2017; EEF, 2019) and school improvement processes (Godfrey, 2019).

WHAT IS IT ABOUT?

This component is about: the organisational structures, resources and processes that support thoughtful engagement with and implementation of appropriate research evidence.

WHY IS IT IMPORTANT?

This component is important because:

- educators need access to facilities and resources (both on-site and online) that support sustained engagement with and in research (BERA, 2014);
- evidence use depends on staff (both individually and collectively) having the time and space to consider how research can inform practice (Coldwell et al., 2017);
- access to research can be supported by links to external partners and intermediaries beyond the school (Farley-Ripple et al., 2018); and
- evidence-informed practice is facilitated by processes that enable teachers to work together in implementing and refining approaches and practices (Brown et al., 2017; Brown & Greany, 2018; Dyssegaard, et al., 2017).

WHAT DOES IT INVOLVE?

This component involves:

- allocating time, space/facilities and budget specifically to research use (Brown & Greany, 2018; Stoll et al., 2018b);
- developing internal (school-based) research champions (Nelson & Campbell, 2019), research-informed and sustained professional learning focused on information literacy and research methods (BERA, 2014; Dyssegaard et al., 2018; Stoll et al., 2018b; Tripney et al., 2018);
- providing on-site and online access to high quality evidence through subscriptions and intermediary organisations (e.g., repositories, research brokers) (BERA, 2014; Brown & Greany, 2018; EEF, 2019; Farley-Ripple et al., 2018; Tripney et al., 2018);
- organising routines that involve both formal and informal learning and sharing of practices such as meetings (Farley-Ripple et al., 2018; Stoll et al., 2018b), forums, lesson study, learning walks, and the use of cycles of inquiry within professional learning communities (Brown & Greany, 2018);
- developing links with external research champions and partnerships (e.g. invited speakers, consultants, coaches, networks, university connections, and research-informed, sustained professional learning (Dyssegaard et al., 2017; Stoll et al., 2018b; Tripney et al., 2018);
- establishing staff recruitment, induction and performance development processes that prioritise evidence-informed practice (Stoll et al., 2017b); and
- building systematic cycles of school improvement processes for integrating research into a school (Brown et al., 2017; Creaby et al., 2017; Godfrey, 2019).

6. SYSTEM-LEVEL INFLUENCES

WHAT IS IT ABOUT?

This component is about: the complex interactions and inter-dependencies across the education sector to support thoughtful engagement with and implementation of appropriate research evidence.

WHY IS IT IMPORTANT?

This component is important because:

- the development of research-engaged schools depends on, and is mediated by, a range of external multi-level factors such as professional bodies, intermediaries and networks (Godfrey, 2019);
- there is increased recognition for the (often limiting) impact that other system influences such as accountability policies and improvement priorities can have on evidence use in schools (Godfrey & Brown, 2019);
- there is growing support for understanding and improving evidence use through system-wide approaches, which focus on building connections between evidence generation, synthesis, distribution and use to form effective “evidence ecosystems” (Boaz & Nutley, 2019, p. 251; Sharples, 2013); and
- consideration of the connections and interactions between the components across the system improves the chance for effective and sustained change (Meadows, 2014; Senge et al., 2012).

WHAT DOES IT INVOLVE?

This component involves:

- education systems embedding research and data literacy training in initial teacher education, ongoing professional learning, and teacher certification and professional standards (BERA, 2014; Coldwell et al., 2017; Nelson & Campbell, 2019; Stoll et al., 2018b; Tripney et al., 2018);
- addressing the research-practice gap between research organisations and schools in order to generate and synthesise research that is better suited for practice (Bryk et al., 2011; Farley-Ripple et al., 2017; Levin, 2013; Sharples et al., 2018; Tripney et al., 2018);
- teacher- and school-level evaluation of the impact of interventions on students (Stoll et al., 2018b), as well as evaluation of the processes and structures that link the production of evidence and its use (Farley-Ripple et al., 2018);
- linking evidence use to whole-school improvement initiatives (e.g., Brown & Greany, 2018; Coldwell et al., 2017; Creaby et al., 2017; EEF, 2019; Sharples et al., 2018);
- prioritising research use at the board/district/central office level of systems (EEF, 2019; Farley-Ripple et al., 2018) and providing funding and support to enable evidence-informed policy and practice (Nelson & Campbell, 2019); and
- developing “coordinated efforts from a wide range of stakeholders – researchers, practitioners, policymakers and intermediaries – working in unison” (Sharples, 2013, p. 24).

7. NEXT STEPS

The aim of this framework is to help define and elaborate what ‘quality use of research evidence’ might mean in education, as part of working towards high-quality use of research evidence in Australian education.

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The ideas presented can be seen as an invitation to reflect honestly on our current approaches to using research evidence. **They can challenge us to think about our willingness to move from talking about ‘whether we use evidence’ to talking about ‘how well we use evidence’.** They can also prompt us to reflect on the ‘appropriateness’ of our research evidence, and the ‘thoughtfulness’ of our engagement with, and implementation of, that evidence.

The ideas underpinning this framework also make clear that high-quality use of research evidence is sophisticated work that needs to be supported by a range of individual, organisational and system-level factors. It therefore raises questions about how prepared we are to foster the development of:

- education professionals with not only the knowledge and skills to understand research evidence (skillsets), but also the values and dispositions to be open to its meaning (mindsets) and the relational sensitivity and capacity to work with others to figure out how to use it in context (relationships);
- education organisations with not only the structures and processes to enable staff to engage with evidence (infrastructure), but also the ethos and values to make evidence use a cultural norm (culture) and the leadership and commitment to demonstrate and promote its significance (leadership); and
- education systems that support quality evidence use not only within specific individuals, institutions or contexts but through coordinated interventions across multiple levels and with varied stakeholders.

It is important to stress, however, that what we have presented in this document is an early conceptual framework based on analysis and synthesis of relevant literature. It has not yet been empirically tested or validated. Over the next few years, the Q Project and the framework will evolve in important ways.

MOVING FROM THE CONCEPTUAL TO THE PRACTICAL

While the Q Project’s work so far has been mainly conceptual (i.e., What does quality evidence use mean?), the next phase is going to be more practical (i.e., What does quality evidence use look like in practice?). In 2020 and 2021, we will be working with 100 schools in New South Wales, Queensland, South Australia and Victoria to better understand and exemplify what using research evidence well looks like and involves in different school contexts (e.g., case studies, illustrations of practice). These practical insights will enable further development and refinement of the quality use framework.

MOVING FROM UNDERSTANDING TO IMPROVING

The Q Project is committed to not only understanding, but also improving, the use of research evidence in Australian schools. In 2022 and 2023, we will be co-designing and trialling professional learning to build teachers’ and school leaders’ capacity to use research evidence well, and bringing educators, leaders, policymakers, researchers and intermediaries together for strategic dialogue and system-level change around evidence use in Australian education.

Working towards high-quality use of research evidence in Australian education is a complex system-level challenge that will require the insights, inputs and energies of many different stakeholders. We therefore encourage you to be part of strategic dialogue and school- and system-level change around evidence use in Australian education. To this end, alongside this Quality Use of Research Evidence Framework, there is a Q Project Discussion Paper that explores further the process of working towards high-quality use of research evidence in Australian education.

For more information about the Q Project and the Discussion Paper, see monash.edu/education/research/projects/qproject

REFERENCES

- Boaz, A., & Nutley, S. (2019). Using evidence. In A. Boaz, H. Davies, A. Fraser & S. Nutley, (Eds.), *What works now?: Evidence-informed policy and practice* (pp. 251–277). Policy Press.
- British Educational Research Association [BERA]. (2014). *Research and the teaching profession: Building the capacity for a self-improving education system*. Final Report of the BERA-RSA Inquiry into the Role of Research in Teacher Education. BERA.
- Brown, C. (2015). Conclusion: Leading the Use of Research in Schools. In C.D. Brown (Ed.), *Leading the use of research and evidence in schools* (pp. 153–160). Institute of Education Press.
- Brown, C., & Greany, T. (2018). The evidence-informed school system in England: Where should school leaders be focusing their efforts? *Leadership & Policy in Schools*, 17(1), 115–137. <https://doi.org/10.1080/15700763.2016.1270330>
- Brown, C., & Rogers, S. (2015). Knowledge creation as an approach to facilitating evidence informed practice: Examining ways to measure the success of using this method with early years practitioners in Camden (London). *Journal of Educational Change*, 16(1), 79–99. <https://doi.org/10.1007/s10833-014-9238-9>
- Brown, C., Schildkamp, K., & Hubers, M. D. (2017). Combining the best of two worlds: A conceptual proposal for evidence-informed school improvement. *Educational Research*, 59(2), 154–172. <https://doi.org/10.1080/0013181.2017.1304327>
- Bryk, A. S., Gomez, L. M., Grunow, A., & Hallinan, M. T. (2011). Getting ideas into action: Building networked improvement communities in education. In M. Hallinan (Ed.), *Frontiers in sociology of education* (pp. 127–162). Springer. https://doi.org/10.1007/978-94-007-1576-9_7
- Cain, T. (2019). *Becoming a Research-Informed School: Why? What? How?* Routledge.
- Campbell, C., & Levin, B. (2013). Building the capacity to use research in education requires a sustained strategic and systemic effort. <https://blogs.lse.ac.uk/politicsandpolicy/building-capacity-to-mobilise-knowledge-and-use-research-to-improve-education/>
- Coburn, C. E., Honig, M. I., & Stein, M. K. (2009). What's the evidence on district's use of evidence? In J. Bransford, D. J. Stipek, N. J. Vye, L. Gomez, & D. Lam (Eds.) *Educational improvement: What makes it happen and why?* (pp. 67–86). Harvard Educational Press.
- Coldwell, M., Greaney, T., Higgins, S., Brown, C., Maxwell, B., Stiell, B., Stoll, L., Willis, B., & Burns, H. (2017). *Evidence-informed teaching: An evaluation of progress in England*. <https://www.gov.uk/government/publications/evidence-informed-teaching-evaluation-of-progress-in-england>
- Creaby C., Dann R., Morris A., Theobald K., Walker M., & White B. (2017). *Leading research engagement in education - Guidance for organisational change*. <http://www.cebenetwork.org/sites/cebenetwork.org/files/CEBE%20-%20Leading%20Research%20Engagement%20in%20Education%20-%20Apr%202017.pdf>
- Davies, P. (1999). What is evidence-based education? *British Journal of Educational Studies*, 47(2), 108–121. <https://doi.org/10.1111/1467-8527.00106>
- Dyssegaard, C., Egelund, N. & Sommersel, H. (2017). A systematic review of what enables or hinders the use of research-based knowledge in primary and lower secondary school. Danish Clearinghouse for Educational Research.
- Earl, L. M. (2015). Reflections on the challenges of leading research and evidence use in schools, in C.D. Brown (Ed.), *Leading the use of research and evidence in schools* (pp. 146–152). Institute of Education Press.
- Earl, L. M. & Timperley, T. (2009). Understanding how evidence and learning conversations work. In L. M. Earl & H. Timperley (Eds.), *Professional learning conversations* (pp. 1–12). Springer.
- Education Endowment Foundation [EEF] (2019). The EEF guide to becoming an evidence-informed school governor and trustee. <https://educationendowmentfoundation.org.uk/tools/governors-guidance/>
- Evans, C., Waring, M., & Christodoulou, A. (2017). Building teachers' research literacy: Integrating practice and research. *Research Papers in Education*, 32(4), 403–423. <https://doi.org/10.1080/02671522.2017.1322357>
- Farley-Ripple, E., Karpyn, A. E., McDonough, K., & Tilley, K. (2017). Defining how we get from research to practice: A model framework for schools. In Eryaman M., Schneider B. (Eds.), *Evidence and public good in educational policy, research and practice* (pp. 79–95). Springer. https://doi.org/10.1007/978-3-319-58850-6_5
- Farley-Ripple, E., May, H., Karpyn, A., Tilley, K., & McDonough, K. (2018). Rethinking connections between research and practice in education: A conceptual framework. *Educational Researcher*, 47(4), 235–245. <https://doi.org/10.3102/0013189X18761042>
- Finnigan, K. S., & Daly, A. J. (2014). Conclusion: Using research evidence in education: From the schoolhouse door to Capitol Hill. In K. S. Finnigan & A. J., Daly (Eds.), *Using research evidence in education: From the schoolhouse door to Capitol Hill* (pp. 177–187). Springer.
- Godfrey, D. (2019). Moving forward—how to create and sustain an evidence-informed school eco-system. In D. Godfrey & C. Brown (Eds.), *An Ecosystem for Research-Engaged Schools* (pp. 202–219). Routledge.
- Godfrey, D. & Brown, C. (Eds.) (2019). *An ecosystem for research-engaged schools*. Routledge.
- Godfrey, D. & Handscomb, J. (2019). Evidence use, research-engaged schools and the concept of an ecosystem. In D. Godfrey & C. Brown (Eds.), *An Ecosystem for Research-Engaged Schools* (pp. 4–21). Routledge.
- Gough, D., Oliver, S., Thomas, J. (2017). *An introduction to systematic reviews* (2nd ed.). Sage.
- Greany, T., & Maxwell, B. (2017). Evidence-informed innovation in schools: Aligning collaborative research and development with high quality professional learning for teachers. *International Journal of Innovation in Education*, 4(2–3).
- Greenhalgh T, Peacock R. (2005). Effectiveness and efficiency of search methods in systematic reviews of complex evidence: Audit of primary sources. *BMJ*, 331(7524), 1064–1065. <https://doi.org/10.1136/bmj.38636.593461.68>
- Handscomb, G. & MacBeath, J. (2003). *The research-engaged school*. Essex County Council, FLARE.
- Hargreaves, A. & Fullan, M. (2012). *Professional capital*. Teachers College Press/Routledge.
- Hemsley-Brown, J. & Sharp, C. (2003). The use of research to improve professional practice: A systematic review of the literature. *Oxford Review of Education*, 29(4), 449–470.
- Levin, B. (2013). To know is not enough: Research knowledge and its use. *Review of education*, 1(1), 2–31. <https://doi.org/10.1080/0305498032000153025>
- Meadows, D. (2014). *Thinking in systems: A primer*. Chelsea Green Publishing.
- Mincu, M. (2014). Teacher quality and school improvement—what is the role of research? *Oxford Review of Education*, 41(2), 253–269. <https://doi.org/10.1080/03054985.2015.1023013>
- Nelson, J. & Campbell, C. (2019). Using evidence in education. In A. Boaz, H. Davies, A. Fraser & S. Nutley (Eds.), *What works now? Evidence-informed policy and practice revisited* (pp. 131–149). Policy Press.
- Nelson, J. and O'Beirne, C. (2014). *Using Evidence in the Classroom: What Works and Why?* NFER. <http://dera.ioe.ac.uk/id/eprint/27753>
- Nelson, J., Mehta, P., Sharples, J. & Davey, C. (2017). *Measuring teachers' research engagement: Findings from a pilot study*. Education Endowment Foundation.
- Nutley, S., Powell, A. & Davies, H. (2013). *What counts as good evidence?* Alliance for Useful Evidence.
- Park, V. (2018). Leading data conversation moves: Toward data-informed leadership for equity and learning. *Educational Administration Quarterly*, 54(4), 617–647. <https://doi.org/10.1177/0013161X18769050>
- Parr, J.M. & Timperley, H. (2008). Teachers, schools and using evidence: Considerations of preparedness. *Assessment in Education: Principles, Policy & Practice*, 15(1), 57–71. <https://doi.org/10.1080/09695940701876151>
- Popay, P., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M. & Britten, N. (2006). *Guidance on the conduct of narrative synthesis in systematic reviews*. Institute of Health Research. <https://www.lancaster.ac.uk/media/lancaster-university/content-assets/documents/fhm/dhr/chir/NSsynthesisguidanceVersion1-April2006.pdf>
- Rickinson, M., Sharples, J. & Lovell, O. (2020). Towards a better understanding of quality of evidence use. In S. Gorard (Ed.), *Getting evidence into education: Evaluating the routes to policy and practice* (pp. 218–133). Routledge.
- Senge, P. M., Cambron-McCabe, N., Lucas, T., Smith, B., & Dutton, J. (2012). *Schools that learn: A fifth discipline fieldbook for educators, parents, and everyone who cares about education*. Crown Business.
- Sharples, J. (2013). *Evidence for the Frontline: A report for the alliance for useful evidence*. Nesta. <https://www.alliance4usefulevidence.org/assets/EVIDENCE-FOR-THE-FRONTLINE-FINAL-5-June-2013.pdf>
- Sharples, J., Albers, B., Fraser, S., & Kime, S. (2019). *Putting evidence to work: A school's guide to implementation: guidance report*. Education Endowment Foundation. https://educationendowmentfoundation.org.uk/public/files/Publications/Implementation/EEF_Implementation_Guidance_Report_2019.pdf
- Spencer, T. D., Detrich, R., & Slocum, T. A. (2012). Evidence-based practice: A framework for making effective decisions. *Education and Treatment of Children*, 35(2), 127–151. <https://doi.org/10.1353/etc.2012.0013>
- Stoll, L., Greany, T., Coldwell, M., Higgins, S., Brown, C., Maxwell, B., Stiell, B., Willis, B. & Burns, H. (2018a). *Evidence-informed teaching: Self-assessment tool for teachers*. Chartered College of Teachers. <https://iris.ucl.ac.uk/iris/publication/1533174/1>
- Stoll, L., Greany, T., Coldwell, M., Higgins, S., Brown, C., Maxwell, B., Stiell, B., Willis, B. & Burns, H. (2018b). *Evidence-informed teaching: Self-assessment tool for schools*. Chartered College of Teachers. <https://iris.ucl.ac.uk/iris/publication/1533172/1>
- Timperley, H. & Earl, L. (2009). Using conversations to make sense of evidence: Possibilities and pitfalls. In L. M. Earl & H. Timperley (Eds.), *Professional learning conversations: Challenges in using evidence for improvement* (pp. 121–126). Springer.
- Tripney, J., Gough, D., Sharples, J., Lester, S., & Bristow, D. (2018). *Promoting teacher engagement with research evidence*. Wales Centre for Public Policy. <https://www.wcpp.org.uk/wp-content/uploads/2018/11/WCPP-Promoting-Teacher-Engagement-with-Research-Evidence-October-2018.pdf>
- Walker, M., Nelson, J., Bradshaw, S., & Brown, C. (2019). *Teachers' engagement with research: What do we know. A research briefing*. Education Endowment Foundation. https://educationendowmentfoundation.org.uk/public/files/Evaluation/Teachers_engagement_with_research_Research_Brief_JK.pdf

APPENDIX: METHODOLOGY

The **Quality Use of Research Evidence Framework** was developed through a year-long systematic and iterative process, informed by the research literature and involving multiple consultations and feedback from diverse education stakeholders.

Prior to the Q Project commencing, one of the principal investigators developed an early framework for quality evidence use based on some emerging literature around this area (Rickinson, Sharples & Lovell, 2020). This initial exploration described quality use of evidence as “the thoughtful use of appropriate evidence, supported by a blend of enabling skillsets, mindsets, relationships and systems” (p. 218). This early framework was used to elicit feedback from teachers, researchers, and other education stakeholders in meetings, workshops and conferences throughout the first year of the project.

To further explore quality evidence use, the team undertook a review of the literature informed by the principles of systematic reviewing, following a transparent method with clearly defined and documented searches, inclusion and exclusion processes, and a quality appraisal process (Gough, Oliver, & Thomas, 2017). The design followed a narrative synthesis of the included documents to accommodate the methodological diversity (e.g., methods, participants, interventions) common in systematic reviews of social interventions (Popay et al., 2006). This review was developed in consultation with experts from a variety of fields (e.g., systematic reviews, information science, evidence use, health, policy, social care, education). The following questions guided the review:

1. How has quality use of research evidence been described and conceptualised across sectors?
2. How can it be defined and conceptualised in education?

The search methods focused on research (empirical or conceptual) and professional (policy or practice) publications. The search terms included key words related to: i) evidence and research use: evidence use, evidence-based/informed decision-making/policy/practice/teaching, research use/engagement/literacy/utilisation/implementation; and ii) ‘quality of use’: ability, adaptive, aptitude, best practices, capability, competence, deep-shallow, effective, expertise, experience, high quality, innovative, intelligent, knowledge level, novice-expert use, professional, skills, thoughtful, and wise.

We drew from both database and informal searches to access the most relevant records (Gough et al., 2017; Greenhalgh & Peacock, 2005). The searches generated 10,983 research and professional publications from four different sector-relevant databases (i.e., ERIC, Medline, Social Services Abstracts and PsycInfo). These records were imported from Endnote into Covidence for double screening, resulting in 268 records proceeding to full text review. In addition, 170 further documents were sourced from key informants, internet searches and reference checks.

Preliminary analysis involved data extraction and appraisal of the initial set documents (i.e., 268 + 170). The papers were organised by sector and appraised through a series of moderation processes within the research team. This process followed an approach suited for studies involving diverse implementation and mixed method approaches (Popay et al., 2006). The categories used to organise the data were descriptive (e.g., aim, methodology, findings, key quotes, themes) (Gough et al., 2017). During this process, there was a large number of documents related to policy, resulting in its establishment as a newly emergent sector.

Through these moderation processes, papers were ranked according to relevance to understanding quality evidence use. The decision to exclude papers at this point was based on discussions around their implicit focus on quality use, given that none of the identified literature presented an explicit focus on quality evidence use. The combined records were thus reduced to a final set of 112 included documents across the four sectors. These included papers were the basis of four narrative syntheses addressing the two above research questions. As an additional moderation process, the three narratives outside the education sector underwent a review by sector experts.

Thematic analysis of the narratives took place over two stages. First, by comparing the early framework of quality use with similarities and differences with ideas from the health, social care and policy literature; then secondly by comparing similarities and differences with ideas from the education literature and stakeholder feedback. The insights informed the development of the current framework.

Throughout the development of the framework, the Q Project team has shared initial and evolving ideas about quality evidence use with project partners and stakeholders through meetings, workshops and conferences. This feedback informed the development and refinement of the framework. This collaborative process was intended to support the development of a practice-based framework, that is reflective of the perspectives and needs of diverse stakeholders across the Australian education system.

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