How can we ensure science informs education policy and practice?

JENNY DONOVAN, Australian Education Research Organisation

How can we ensure science informs education policy and practice?

In this presentation:

- A brief overview of AERO; its origins, vision and purposes
- How AERO will support a more evidence-based approach in education
- The implications for practitioners and policymakers

ecnam

Cnesco

Part 1: Introducing AERO

A brief overview of the Australian Education Research Organisation

AERO's vision is for Australia to achieve excellence and equity in educational outcomes for all children and young people through effective use of evidence

- Independent national body, expressly charged by governments with the task of generating, presenting, and implementing evidence and research
- Initial investment of \$50m over three years from Ministers
- Governed by an independent, expert Board of Directors

• Three purposes:

- generate high-quality evidence eg RCTs; data linkage and analyses; investigation and construction of measures
- present high-quality evidence that is relevant and accessible eg synthesise existing research; curate resources; translate knowledge into products that are engaging and useful
- encourage adoption and effective implementation of evidence in practice and policy eg undertake research into strategies that support greater evidence use; understand the current state of evidence use; develop measures of evidence use in practice.

ecnam

Cnesco

Part 2: The basis for AERO's approach

How AERO will support a more evidence-based approach in education

le cnam Cnesco

Government reviews into key activities and features of research and evidence institutions

Generate and source

Successful organisations ensure:

- Implementation considerations are investigated including feasibility, efficiency and cost-effectiveness.
- Research and evidence is **appropriate** for the issue, target group or context.
- Findings are **adaptive** and can be implemented across varying contexts.
- Evidence about the **effectiveness** of interventions is demonstrated.
- Research and evidence is relevant to current educational issues and practice.

Knowledge management

Successful organisations:

- **Translate** information into a form, language and style to ensure knowledge transfer and use.
- House data in a secure and easily accessible way.
- Use **brokers** so the beneficiaries are able to better utilise the evidence and influence the work of others.
- Create **data linkages** between information sets from multiple sources.

Synthesis

Successful organisations:

- Accept eclectic methods drawing on a wide array of methodologies.
- Have in place quality standards.
- Ensure research and evidence is **fit for purpose** and aligns with the key objective.
- Are **analytic** to determine the merit and worth of research evidence.

Utilisation

Successful organisations:

- Undertake **engagement** to determine how much data is translated and to whom.
- Create **feedback loops** so receivers can express their views on the utility of information and communicate prospective needs.
- **Create connections** to form collaborative relationships between researchers, practitioners, policy makers and social commentators.

Clinton, J.M., Aston, R. & Quach, J. (2018) Promoting evidence uptake in schools: A review of the key features of research and evidence institutions

le c**nam** Cnesco

Consultations with, and research on, evidence intermediaries

- The question of impact we must do more than merely generate and present high-quality evidence; to ensure impact we must play a critical part in facilitating the implementation of that evidence too
- What works for "what works" centres: Learnings from system-level efforts to cultivate evidence informed practice (Abdo, Goh *et al.* 2021) identifies factors that limit success:
 - inadequate attendance to effective and sustainable implementation
 - lack of credibility with the field
 - slow pace with which evidence is shared
 - insufficient awareness of how frontline practitioners, including educators, understand and use evidence
 - inappropriate skills and competencies in the workforce
 - rigour but not relevance in the evidence shared
 - lack of understanding of how to influence the policy process
- Consultation with the sector revealed an appetite for AERO to be 'bold and authoritative'

AERO's Research Agenda and Work Plan are developed in consultation with the education community

We are guided by three key factors:

- Demand Each year, AERO listens to the Australian education community to hear their priorities and interests.
- Impact We consider evidence gaps and areas of research that are likely to lead to the greatest impact.
- Feasibility We consider operational issues, including availability of resources, data, expertise etc.

ecnam

Cnesco

Part 3: Scaling up evidencebased practice

How AERO will work through systems as well as with practitioners

le c**nam** Cnesco

We can accelerate impact if we target both policymakers and practitioners

- In order for practitioners to make sustained change towards evidencebased practices they will need:
 - capability/knowledge
 - opportunity/support
 - motivation/disposition
- To ensure policymakers are ready to meet these needs, AERO will:
 - seek to have systems and other partners disseminate our evidence-based resources to practitioners, and align their own guidance for practitioners with evidence
 - ensure our work is relevant to the needs of systems and other partners, and that they are engaged in its conduct, to improve the likelihood they will do so
 - help systems understand how to structure their policies, programs and professional learning to more effectively support sustained practice change, by conducting and engaging them in research around these questions.

We are establishing a baseline so that we can measure improvement (I)



Evidence use in early childhood education and care (ECEC) and schools

The Australian Education Research Organisation (AERO) has taken a first look at data from our evidence use survey. These initial, high-level findings help us understand how early childhood and school practitioners currently use evidence in their work. The findings focus on practitioners' beliefs, confidence and practices. They are based on responses from 1,358 early childhood teachers, early childhood directors, school teachers and school leaders across Australia.

AERO focuses on two types of evidences

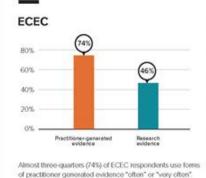
Practitioner-generated evidence includes information or data generated through daily practice In ECEC, practitionergenerated evidence usually includes observations of children's learning and development.

Research evidence is academic research that is usually published as books, reports, articles, summaries or podcasts 1,358 survey responses

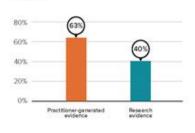
Using different types of evidence

school data.

Practitioner-generated evidence informs practice much more often than research evidence does. This is true for both ECEC and schools.







Almost two thirds (63%) of school respondents use forms of practitioner-generated evidence "often" or "very often". Fewer than half (40%) regularly use research evidence.

CONFÉRENCE DE COMPARAISONS INTERNATIONALES DU CNESCO SUR LA GOUVERNANCE DES POLITIQUES ÉDUCATIVES

Just under half (46%) regularly use research evidence.

We are establishing a baseline so that we can measure improvement (II)



Moving from belief to practice

Just because practitioners **believe** evidence is useful doesn't mean they regularly **use** it. This is particularly true for research evidence.

Most (87%) of the ECEC By contrast, fewer than half (48%) of ECEC respondents who believe observations of respondents who believe children's learning are recommendations from useful for evaluating a academic research are practice also regularly a useful source of use observations to evidence also regularly evaluate their practice. use recommendations from academic research to trial or refine their

Schools

Most (83%) of the

data is useful for

their practice.

school respondents

who believe student

evaluating a teaching

use data to evaluate

practice also regularly



By contrast, just over half (54%) of the school respondents who believe recommendations from academic research are a useful source of evidence also regularly use recommendations from academic research to trial or refine their practice.

Confidence in using research evidence

There are a number of possible reasons why practitioners may not regularly use research evidence even though they believe it is useful. One possible reason could be a lack of confidence.

practice.

To be confident in using research evidence, practitioners need to know it's both **relevant** (appropriate for their context) and **rigorous** (made using high quality research methods).

For ECEC and school respondents who believe recommendations from academic research are a useful source of evidence, but don't regularly use these recommendations to trial or refine their practice:

Image: Second second

AERO aims to help practitioners use both practitioner-generated evidence and research evidence in their work.

Access our evidence tools at: edresearch.edu.au/evidence

XERO's vision is for Australia to achieve excellence and equity in educational outcomes for all children and young people through effective use of evidence.



August 2021 Australian Education Research Organisation Ltd, unless otherwise indicated. Creative Commons BY 4.0, excluding character flustrations: shutterstock:com/g/GoodStudio

CONFÉRENCE DE COMPARAISONS INTERNATIONALES DU CNESCO SUR LA GOUVERNANCE DES POLITIQUES ÉDUCATIVES

Thank you for your attention

JENNY DONOVAN

AERO https://www.edresearch.edu.au/