



# Evidence use in education policymaking – desktop review

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### About the Australian Education Research Organisation

AERO is working towards excellent and equitable outcomes for all children and young people by generating and making high-quality evidence accessible and enhancing the use of evidence in Australian education. AERO is a not-for-profit company owned by education ministers and operating under the governance of an independent Board.

A key recommendation from Through Growth to Achievement: Report of the Review to Achieve Excellence in Australian Schools (sometimes referred to as the Gonski review) was the establishment of a national education evidence body — AERO. The intent was to ensure that all school leaders, teachers and educators have access to the best available evidence and resources and are supported to easily and effectively incorporate them into their practice in schools and early childhood services across Australia.

For more information visit <u>edresearch.edu.au</u>

### **About Learning First**

Learning First is an education research and consulting group. We work closely with education leaders to tie policy reform at the highest level of government to deep change in the classroom.

Founded by Dr Ben Jensen in 2014 and based in Melbourne, Australia, Learning First works closely with governments, states and districts in various countries on how to reform their school systems by drawing the lessons of leading research and the practical experience of high-performing systems around the world.

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### 1 Introduction

Over past decades, the term 'evidence-based policy' has come to dominate policy discussions. <sup>1</sup> This is true across Australia and internationally, in education policy as well as other policy areas. In education, there is often talk of getting evidence into early childhood education and care (ECEC) services and schools, such as making practitioners more aware of evidence-based teaching practices. <sup>2</sup> There is less discussion around how senior education policymakers use evidence to make decisions, and this is an important area of influence for the Australian Education Research Organisation (AERO).

This report summaries a desktop review of research aimed at answering two key questions:

- 1. How is evidence currently used in education policymaking, particularly in Australia?
- 2. What are the key enablers and barriers for the use of evidence in education policymaking, particularly in Australia?

'Evidence' is defined in this project to include both *research evidence* (that is, academic research usually published as books, reports, articles, summaries or podcasts) and *sector-generated evidence* (which includes data and information drawn from national or state assessments or collected from ECEC services, schools and related sectors). Policymakers also refer to advice from trusted individuals and organisations as a form of evidence.

## 1.1 Methodology

This short report describes the findings from a desktop review of research about how policymakers use evidence in decision-making. The research questions driving this report are about Australian education policymakers, but there is limited current (last decade) literature about this specific group. Therefore, the scope of the desktop review included both education-specific literature as well as literature from other fields. The review focused mostly on Australia but included highly relevant literature from other countries.

A targeted desktop search was conducted in the databases and with the search terms described in Box 1. The papers identified were supplemented with literature provided from AERO (although these papers and the scan overlapped in most cases).

To be included, studies needed to be:

- primary research, reviews or commentary regarding how, or to what extent, evidence is used in policymaking
- about ECEC or school primarily, though highly relevant and current policy areas from other sectors were eligible for inclusion
- about Australian policymakers primarily, though highly relevant and current results from other countries were eligible for inclusion
- primarily current (last decade) studies, though highly relevant older research was eligible for inclusion
- peer-reviewed publications or selected grey literature.

<sup>&</sup>lt;sup>1</sup> Bédard & Ouimet, 2016; Slavin, 2020; Department documents such as 'Using evidence for impact' (PDF) from Victoria.

<sup>&</sup>lt;sup>2</sup> See for example Clinton, Aston, & Quach, 2018 which was cited in the Gonski Review (Gonski et al., 2018)



Box 1: Desktop review databases and search terms

Databases	Search terms
<ul> <li>Education</li> <li>ERIC (Education Resources Information Center)</li> <li>A+ Education (Informit)</li> <li>General</li> <li>Academic Search Complete (EBSCO)</li> <li>Google Scholar</li> </ul>	Content terms

### 1.1.1 What research exists?

There were 176 pieces of literature identified through the initial scan, and through a review of the content of each of these pieces of research, 40 were assessed as relevant to the research questions. They were analysed and briefly detailed in Appendix 1. Of these, 12 focused on Australian policymaking. The remaining studies were mostly from North America (primarily the USA or Canada) and Europe (conducted across several countries or country-specific, for example, Romania), or had an international focus.

The relevant papers include:

- one systematic review about the barriers to and facilitators of the use of evidence by policymakers
- 25 empirical studies, which are mostly based on surveys or interviews with policymakers, with some analysis of policy documents, case studies, and one randomised controlled trial. Most of the Australian studies are empirical studies using surveys and case studies.
- 14 articles which can be summarised as commentary on the field, commentary of how past policymaker decisions were made, or other secondary analysis.

Much of the literature focuses on research evidence, looking at how policymakers access and use academic findings, including summaries of research evidence. A subset of the literature examines sector-generated evidence. Some literature also describes information from individuals and organisations, which policymakers saw as a form of evidence.



### Limitations

Most of the empirical studies use surveys or short interviews which may be limited as they are self-reports. For example, in some surveys there are unexpected results, such as positive correlations between policymakers saying they do not have access to research but also saying they often use evidence for policymaking.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Cherney, Head, Povey, Ferguson, & Boreham, 2015



# 2 How is evidence currently used in education policymaking?

This section briefly summarises the literature findings on how evidence is used in policymaking, with particular emphasis on:

- What evidence do policymakers use?
- How does evidence fit into policy development?

# 2.1 What types of evidence do policymakers access?

Across the literature, there is no single, unanimously accepted definition of 'evidence.' There is a broad range of information available to influence policy decisions, with research evidence being only one type of information among many others. Different types of evidence education policymakers may use include: 5

- Research evidence: Professional trade books, resources, publications
- Sector-generated evidence: Student assessment data, feedback surveys and other data
- Advice from individuals and organisations: Academics and/or consultants, universities, professional associations, not-for-profits and vendors

### Research evidence

The literature shows that education policymakers have an interest in using research evidence to make policy decisions.<sup>6</sup> There is likely a spectrum of interaction, with some policymakers engaging more closely with academic research than others.<sup>7</sup> Surveys have shown that the majority of policymakers (in education and other areas) have drawn on academic research for documents or decision-making.<sup>8</sup>

Policymakers do not appear to have a strict view of what constitutes 'research'. Books are commonly cited by education policymakers as useful for decision-making, but they also use government reports, professional association articles and policy reports prepared by researchers. Education policymakers use peer-reviewed journal articles but may not find them as useful or relevant as these other research sources. Surveys of policymakers show they use research but may not use it very frequently.

### Sector-generated evidence

Like the movement toward evidence-based policy, there is a similar push to data-based decision-making in education. Student outcomes data and implementation data is used regularly to both instigate policy and to evaluate programs. The literature shows that system data might be a more important source of evidence for policy decision-making compared to research evidence.<sup>12</sup>

<sup>&</sup>lt;sup>4</sup> Bedard, 2017; Galway & Sheppard, 2015

<sup>&</sup>lt;sup>5</sup> Coburn et al., 2020

<sup>&</sup>lt;sup>6</sup> Brown, 2014

<sup>&</sup>lt;sup>7</sup> Newman, Cherney, & Head, 2016

<sup>&</sup>lt;sup>8</sup> Newman et al., 2016; Cherney et al., 2015; Galway & Sheppard, 2015

<sup>&</sup>lt;sup>9</sup> Coburn et al., 2020

<sup>&</sup>lt;sup>10</sup> Penuel, Farrell, Allen, Toyama, & Coburn, 2018

<sup>&</sup>lt;sup>11</sup> Newman et al., 2016

<sup>&</sup>lt;sup>12</sup> Coburn et al., 2020; Honig & Coburn, 2008



### Advice from individuals and organisations

Policymakers turn to trusted individuals and organisations for evidence-informed opinions. Information from immediate colleagues appears to be judged as one of the most valuable sources.<sup>13</sup>

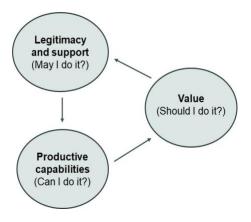
## 2.2 How does evidence fit into policy development?

Relatively little is known about how evidence fits into the process of policymaking; there is no specific stage of policymaking where evidence is more or less likely to be used. So, there is little evidence that says, for example, that evidence is more likely to be used in problem diagnosis, but not in the development of programs within a policy. This level of detail is not evident in the literature included in this desktop review.

In the absence of strong empirical findings, it may be useful to consider frameworks for effective decision-making in public policy. One of the most widely used frameworks in public policy is the strategic triangle for creating public value (Figure 1).<sup>14</sup> The framework does not focus on how evidence is used in policymaking, but highlights that evidence is only one part of decision-making in policy development. In this framework, there are 3 main issues policymakers consider when making decisions: public value, legitimacy and support and productive capabilities. Public value is linked to the purpose, mission, goals and objectives of the entity the policymaker is leading. In the education policy literature, this is often directly linked to raising student outcomes. Evidence may be used to consider what types of policies will lead to improving student outcomes and other goals. Legitimacy and support – the authorising environment – need to be stable with informal and formal political support for the policy. Productive capabilities represent the feasibility of the policy. This includes staff skills, infrastructure and budget. These can all be barriers or enablers to implementing policy.

In education policy, most of the emphasis is on using evidence to consider which policies bring the most public value. There are various 'what works' programs in governments which summarise research on outcomes. 15 Education policymakers are interested in ensuring there is evidence linking policy to outcomes. However, evidence might also be used to improve the other elements of the strategic triangle. For example, there is an evidence base that can be accessed to guide policymakers on how to generate more political support for an initiative, or evidence on how to develop staff. These areas are less of a focus in the current literature. The strategic triangle model shows that it is not necessarily that other goals take priority over evidence, but that there are other factors that go into making policy than just attempting the highest value policy. The evidence may show that a certain policy will deliver high value, but it is not the best policy if it is not politically feasible or if the capabilities to effectively execute the policy don't exist.

Figure 1: The strategic triangle: Framework for how policymakers make decisions



Source: Adapted from Moore, 1995

<sup>&</sup>lt;sup>13</sup> Cherney et al., 2015' Galway & Sheppard, 2015

<sup>&</sup>lt;sup>14</sup> Moore, 1995

<sup>&</sup>lt;sup>15</sup> See www.gov.uk/guidance/what-works-network and https://ies.ed.gov/ncee/wwc/



# 3 What are the enablers and barriers to using evidence in education policymaking?

Policymakers want to use evidence for decision making, but their ability to do so hinges on many different factors. These factors can act as enablers (which support evidence use) or barriers (which may explain why evidence is not used or is used in limited ways). <sup>16</sup> Each factor can be an enabler or barrier depending on whether it is a positive or negative influence. For example, the amount of time an individual policymaker has can be an enabler if they are able to make more time to review evidence, or a barrier if no time is available. Similarly, the credibility of a researcher can be an enabler of their ability to influence policymaking, but this can also be a barrier if the researcher is considered biased. Importantly, the research reviewed does not indicate there are significant differences across sectors or countries. This is not to say that differences don't exist, but that the literature has not identified key differences in, for example, how Australian policymakers use evidence in policymaking compared to other countries.

The literature on this topic offers various ways to categorise and conceptualise barriers and enablers. Across the different studies and papers, two main categories emerged: characteristics of the evidence and characteristics of policymaking. In terms of characteristics of the evidence, there are factors about the evidence itself and about the way the evidence is disseminated (and the skills of the disseminator). Characteristics of the policymaker include factors about the setting in which the policymakers work and factors about their own background, skills, experience and disposition. Figure 2 shows the list of all barriers and enablers that emerged from the literature, and each are described briefly below.

Figure 2: Barriers and enablers to using evidence in policymaking

# Barriers and Enablers to Policymakers Using Evidence

Characteristics of the Evidence		Characteristics of the Policymaker		
Evidence	Dissemination	Policymaker settings	Individual Policymaker	
Relevance	Timeliness	Time constraints/pressure	Skills to access & understand evidence	
Ease of interpretation	Relationship with policymakers	Infrastructure to access evidence	Time	
Credibility/bias	Linked to policymaker priorities	Development of staff skills to use evidence	Disposition toward evidence	
Transferability	Understanding how policy is made	Culture placing emphasis on evidence	Subject expertise	
Policy-readiness	Knowledge translation for non-academic audience	Political pressures		
Rigour		Short term versus long term goals		
		Routines for decision making		

<sup>&</sup>lt;sup>16</sup> Oliver, Innvar, Lorenc, Woodman, & Thomas, 2014



### 3.1 Characteristics of the evidence itself

How policymakers use evidence is shaped by the evidence itself. Most often this focuses on research evidence with little differentiation for sector-generated evidence. For academic research to have an influence it must be accessible, and this connects to its relevance, ease of interpretation, credibility, transferability, policy-readiness and rigour.

#### Relevance

Relevance is obviously important to policymakers. But relevance is a broad notion rather than a tightly established definition of types of evidence. Relevance is how policymakers perceive research and there is little research on how different policymakers define relevance. That said, when policymakers deem academic research as relevant, then it is more likely to be included in policymaking.<sup>17</sup> Relevance is also an issue for policymakers who report that they have trouble finding research or evidence on pressing issues because the evidence has not been produced.<sup>18</sup>

Relevance is also regularly used to dismiss research and can stem from the consistent finding in the literature that many policymakers, particularly education policymakers, have a negative view of how relevant research is to their goals and roles.<sup>19</sup>

### Ease of interpretation

In some cases, there is a perception that academic research is written for other researchers than for the general public. Partially because of this, some policymakers prefer to rely on internal briefs or summaries of research or evidence in other forms which can be easier to interpret.<sup>20</sup>

### Credibility/bias

Evidence from recognisable and trusted sources lends more credibility to policies which policymakers are seeking to implement.<sup>21</sup> The credibility of the source is therefore important not just to get policymakers on board, but to get more political buy-in. Again, credibility is in the eye of the beholder so the perception of credibility may or may not reflect the rigour of the research.

### **Transferability**

The literature highlights that policymakers emphasise the extent that evidence is applicable to their exact context. In some cases, policymakers reject evidence from studies, regardless of quality of evidence, if they believe the research context is too different from their own.<sup>22</sup> This can also be related to the relevance of research, but transferability focuses specifically on whether research has been conducted in a system similar to the policymakers' own system. This can also be important to help policymakers generate the political support for new policy as well. If the origin of evidence is from a location that is considered to be too different, it will be more difficult to gain support for the policy.

<sup>&</sup>lt;sup>17</sup> Cherney et al., 2015

<sup>&</sup>lt;sup>18</sup> Honig & Coburn, 2008

<sup>&</sup>lt;sup>19</sup> Galway & Sheppard, 2015

<sup>&</sup>lt;sup>20</sup> van der Arend, 2014

<sup>&</sup>lt;sup>21</sup> Goertz, Barnes, Massell, Fink, & Francis, 2013

<sup>&</sup>lt;sup>22</sup> Honig & Coburn, 2008



### **Policy-readiness**

Policymakers are more likely to seek and use research designed in a way that is easily usable and which includes additional tools or implementation strategies.<sup>23</sup>

### Rigour

Some studies indicate that the quality of evidence is not a high priority for determining uptake by policymakers.<sup>24</sup> Policymakers often look to individuals or organisations to relay evidence, and it is clear that sometimes there is not a thorough vetting of the research behind these expert advisors.<sup>25</sup> A series of interviews with education policy leaders in the USA, for example, found that although policy leaders use evidence, only one leader named a peer-reviewed publication among their sources of evidence.<sup>26</sup> Since much of the literature reviewed in this report is based on surveys and interviews with policymakers, there is little ability to externally judge whether the evidence that policymakers say they are using is rigorous.

However, policymakers likely pay more attention to the rigour of evidence when the politics of a policy idea are challenging.<sup>27</sup> This is when policymakers need to ensure they are getting it 'right', so they feel comfortable taking risks. In these cases, the way that findings are communicated by researchers can influence policymakers. If researchers are communicating a lot of certainty in their findings – for example a 'high effect size' finding – this is likely to be influential regardless of the rigour behind the findings.<sup>28</sup> It is therefore important for researchers to consider how findings might be interpreted, or misinterpreted, by policymakers who want to minimise uncertainty.

### 3.2 Dissemination of evidence

For evidence to have an impact, it is important for researchers to engage with end-users through meetings and dissemination processes.<sup>29</sup> The dissemination of evidence, and how well it is disseminated, have an impact on how evidence is used by policymakers. Key issues include:

- Timeliness: A common issue for policymakers is that there is a perception that academics work on longer time frames that are incompatible with the quicker timing requirements of policy.<sup>30</sup> The issue of timeliness may come up in partnerships between education departments and researchers there is a political and operational need from policymakers that might mean timelines are shorter than would be the case in other forms of research.<sup>31</sup>
- Relationship with policymakers: A frequently reported enabler of evidence use is collaboration between researchers and policymakers.<sup>32</sup> Informal contacts between academic researchers and policymakers can support the use of evidence in policymaking. Formal research partnerships between academic researchers and government have also been shown to influence evidence uptake.<sup>33</sup> Ongoing relationships with researchers might support policymakers to be able to continuously incorporate the most up-to-date evidence into their thinking.<sup>34</sup> Policymaking is often not linear, so there are multiple opportunities for policymakers to interact with evidence, and

<sup>23</sup> Goertz et al., 2013

<sup>&</sup>lt;sup>24</sup> Cherney, Povey, Head, Boreham, & Ferguson, 2012

<sup>&</sup>lt;sup>25</sup> Coburn et al., 2020; Nakajima, 2021.

<sup>&</sup>lt;sup>26</sup> Coburn et al., 2020

<sup>&</sup>lt;sup>27</sup> Conaway & Goldhaber, 2018

<sup>&</sup>lt;sup>28</sup> Gorard, 2020

<sup>&</sup>lt;sup>29</sup> Cherney et al., 2012; Goertz et al., 2013

<sup>&</sup>lt;sup>30</sup> Newman et al., 2016

<sup>31</sup> Honig & Coburn, 2008

<sup>32</sup> Oliver, Innvar, Lorenc, Woodman, & Thomas, 2014

<sup>33</sup> Cherney et al., 2012

<sup>&</sup>lt;sup>34</sup> Brown, 2014



when they have a relationship with researchers they may be able to continuously develop knowledge and skills. However, there are potential consequences and costs to these relationships, for example, problems managing research partnerships and differing priorities of partners. There will likely be different institutional cultures driving academics and policymakers, so tensions in collaborations may occur. However, there are potential consequences and costs to these relationships, for example, problems managing research partnerships and differing priorities of partners. There will likely be different institutional cultures driving academics and policymakers, so tensions in collaborations may occur. However, there are potential consequences and costs to these

- Linked to policymaker priorities: Given the amount of evidence available on multiple topics, it is
  often difficult to sort through it all and find what is most relevant for policy decisions at hand.
  Disseminators of evidence could influence this process but there is little evidence of the best
  mechanisms for dissemination.<sup>37</sup>
- Understanding how policy is made: Researchers who understand the needs of policymakers may be better able to translate the outputs of academia into forms that are recognisable as being useful to decision makers.<sup>38</sup> This means understanding the processes that policymakers use, including their routines and policy cycles, will help with evidence uptake.
- Knowledge translation for non-academic institutions: Researchers may enable evidence use by policymakers by packaging evidence into formats which are friendly to the general public.<sup>39</sup>

# 3.3 Policymaker settings

Further issues arise in the environment in which policy is developed. These include:

- Time constraints/pressure: Education policymakers must respond to the time constraints of the of the education system. Education policymakers may often work toward certain annual deadlines which revolve around the school year, such as preparing policy announcements before the end of the year to give enough notice to schools for the following year. Additionally, there are always urgent issues that need attention when there is not much time to analyse extensive evidence. In these cases, policymakers may feel unable to use evidence effectively.<sup>40</sup>
- Infrastructure to access evidence: In some policy settings, research syntheses are not available and up-to-date studies are not accessible.<sup>41</sup> When evidence is available, it might not be accessible in a form that can be used for decision-making.<sup>42</sup>
- Development of staff skills to use evidence: Policymakers and organisations that value the use of
  evidence for policymaking focus on the development of staff skills to better understand and use
  evidence.<sup>43</sup> The literature shows that considerable work is needed in many systems as a
  substantial portion of policymakers report that their organisations lack structures and processes
  for effective dissemination and translation of external research for policy needs.<sup>44</sup>
- Culture placing emphasis on evidence: The absence of a research culture in the setting of a
  policymaker's workplace significantly decreases the odds of research uptake.<sup>45</sup> The culture
  around research and evidence may be related to the leader's values and views on evidence as
  well.<sup>46</sup>

<sup>&</sup>lt;sup>35</sup> Goertz et al., 2013; Harris et al., 2013; Ion, Iftimescu, Carmen, & Marin, 2019

<sup>&</sup>lt;sup>36</sup> Bogenschneider & Corbett, 2010

<sup>&</sup>lt;sup>37</sup> van der Arend, 2014

<sup>38</sup> Newman et al., 2016

<sup>&</sup>lt;sup>39</sup> van der Arend, 2014

<sup>40</sup> van der Arend, 2014

<sup>&</sup>lt;sup>41</sup> Honig & Coburn, 2008; Bedard, 2017

<sup>42</sup> Newman et al., 2016

<sup>43</sup> Bédard & Ouimet, 2016

<sup>44</sup> Head, Ferguson, Cherney, & Boreham, 2014

<sup>&</sup>lt;sup>45</sup> Cherney et al., 2015

<sup>46</sup> van der Arend, 2014



- Political pressures: Policymakers may sometimes feel that policy decisions are based on what is
  politically acceptable. There can be situations where evidence is used to justify existing positions,
  rather than inform policy decisions. This can occur when a policy that is already being
  implemented needs political reinforcement.<sup>47</sup> Occasionally, policies originate from commitments
  of the ministers or the political party currently in power (for example, an election promise).<sup>48</sup>
- Short-term versus long-term goals: Similar to political pressure, there are pressures to deliver measurable outcomes quickly. This can lead to preference for policies that are not evidencebased but are more likely to work in the short term.<sup>49</sup>
- Routines for decision-making: Policymakers may be more knowledgeable about evidence use if they work in settings with existing policies to address the use of research in decision-making.<sup>50</sup> The literature referenced the different policymaking structures various organisations may have, which influence how evidence is used. Some structures are described as cycles of policy and others as organisational routines. Organisational routines are described as 'repetitive, recognisable patterns of interdependent actions, involving multiple actors'.<sup>51</sup> This may involve meeting structures, procedures for making decisions, protocols for review or roles within teams. The different ways that organisations are set up affect how evidence is used routinely.

# 3.4 Individual policymaker

Individual skills, abilities, capabilities, and dispositions will affect how and to what extent policymakers use evidence. These include:

- Skills to access and understand evidence: Individual skills to understand and interpret evidence
  affect how likely policymakers are to use evidence.<sup>52</sup> Senior policymakers may not need
  comprehensive analytical skills, but they need to understand what makes quality research, what
  evidence to ask for, and what sources are commonly used.
- Individual's time: Senior policymakers tend to have diaries full of meetings, and they often must deliberately make time to review evidence as part of their daily work. A constraint of time has come up throughout the literature as a possible barrier to using evidence.<sup>53</sup>
- Disposition toward evidence: Policymakers may have different views on how important evidence is for making decisions. The different dispositions of policymakers will affect their use of evidence in their role.<sup>54</sup> It is not clear which dispositions are more or less likely to consider evidence important to policy making, but there is recognition that individual dispositions will always play a role.
- Subject expertise: Policymakers will likely use evidence differently if they are a subject expert in
  education policy or if they are a generalist working in education policy for the first time. Studies
  show that policymakers will search for and pay greater attention to evidence that they can fit into
  what they already know.<sup>55</sup> Policymakers may use evidence that they can translate into simpler
  forms that match their areas of expertise.
- Experience: Senior policymakers who have worked for a long time in the entity they are currently leading may have a deep understanding of how policy is made and what evidence is available in

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<sup>&</sup>lt;sup>47</sup> Newman et al., 2016

<sup>&</sup>lt;sup>48</sup> Brown, 2014

<sup>49</sup> van der Arend, 2014

<sup>50</sup> Haecker, Lane, & Zientek, 2017

<sup>&</sup>lt;sup>51</sup> Coburn et al., 2020

<sup>&</sup>lt;sup>52</sup> Head et al., 2014

<sup>&</sup>lt;sup>53</sup> Bedard, 2017; Galway & Sheppard, 2015; Newman et al., 2016

<sup>&</sup>lt;sup>54</sup> Bedard, 2017

<sup>55</sup> Honig & Coburn, 2008



the system. However, senior education policymakers often come from other departments, or even from outside of the public sector. The different levels of experience can affect how well policymakers are able to navigate their own systems to use evidence.<sup>56</sup>

### Conclusion

Policymakers want to use evidence in their decision-making, and the literature points in the direction of improved evidence use over time. The goal behind evidence-driven policy is for policy to be based on evidence rather than opinion or personal judgement. But evidence does not dominate decision-making in developing policy. That is not to say that evidence is regularly ignored, but that there is a range of factors influencing decision-making and how policymakers sort through information and advice.<sup>57</sup> It can be difficult to find the most reliable, most objective, most relevant evidence available and make the most out of it within practical constraints.<sup>58</sup>

Research highlights that a range of factors influence policy development but is less useful for providing a clear pathway to improve how evidence is used in policymaking. There is general discussion about the rigour of evidence – that there should be greater emphasis on, for example, randomised control trials – but the literature doesn't indicate that this is of prime importance to policymakers.

To make evidence more effective, researchers may need a better understanding of the policy process or may need an intermediary disseminator of knowledge who can hold a strong relationship with policymakers over time. AERO may consider which barriers and enablers it can influence to improve evidence use in policymaking. This will support the short- and long-term priorities on AERO's work agenda.

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<sup>&</sup>lt;sup>56</sup> Honig & Coburn, 2008

<sup>&</sup>lt;sup>57</sup> Doberstein, 2017

<sup>58</sup> Bédard & Ouimet, 2016



# **Appendix 1: Summary of relevant papers**

Table 1: Summary of relevant papers, grouped by type

Australian studies are highlighted.

Paper	Туре	Summary	Jurisdiction	Sector
Harris, Jones, & Adams, 2016	Analysis of policies	Finds that leadership preparation and development programmes are increasingly becoming standardised as a result of education systems borrowing and adapting from each other	International	Education
Gorard, 2020	Book: case studies & research summaries	Addresses these questions: 1) What is the existing evidence on different approaches to getting research evidence into use? 2) What are the factors which influence the uptake of high-quality research evidence by policy or practice? 3) Which are the most effective pathways for evidence-into-use in particular contexts?	International	Education
Ledger & Vidovich, 2018 Open access	Case study	Examines how Pre-service Internships in Australia are driven by the National Partnership Agreement on Improving Teacher Quality Program (NPTQ)	Australia	Education
Rodwell, 2017 Open access	Case study	Using historical research methodology, details the politics of contested educational policy in respect to the provision of Tasmanian postsecondary classes for all Tasmanian secondary schools, as a measure to alleviate postsecondary school retention rates.	Australia	Education
Shaxson & Boaz, 2021 Open access	Case study	Examines relationships between research and policy in environmental and sustainability education. Includes three cases to analyse policymakers' perspectives on using evidence to inform decision-making.	International	General
Dinham, 2015 Open access	Commentary	Provides examples of how evidence has been used to justify different Australian education policies	Australia	Education
Lewis, Savage, & Holloway, 2020	Commentary	Examines the dynamics of policy production for how standards-based reforms (SBRs) are being constituted in Australia and the USA	Australia and the USA	Education
Bedard, 2017	Commentary	Argues that – with evidence-based policymaking focusing on the nature and understanding of evidence, the context of evidence use, and the role of evidence in the policy process – the addition of the behavioural lens from psychology to this field of research is a promising development	Canada	General
Bédard & Ouimet, 2016 Open access	Commentary	Argues for instilling more rationality into the policymaking process by taking into account relevant research findings (rather than uncritically importing everything considered as evidence into the policy process)	Canada	General
Harris et al., 2013 Open access	Commentary	Reviews evidence of practitioner engagement and finds it limited in the areas of school effectiveness research,	International	Education



		greater in the area of school effectiveness research and most prevalent in school/system improvement		
Wiseman, 2010	Commentary	research  Examines the following two questions: Why use evidence in educational policymaking? And why is evidence- based educational policymaking a global phenomenon?	International	Education
Brown, 2014	Commentary	Argues that the phronetic approach presents an alternative and viable way of establishing enhanced levels of evidence use within educational policy development. Advocates for policy learning communities.	UK	Education
Slavin, 2020	Commentary	Discusses the increasing role of evidence in educational policy, rapid growth in availability of proven approaches, and development of reviews of research to summarize the evidence	USA	Education
Conaway & Goldhaber, 2018 Open access	Commentary	Offers suggestions for how policy makers might think about the level of confidence they need to make different types of decisions and how researchers can provide more useful information so that research might appropriately affect decision-making	USA	Education
Lewis & Hogan, 2019	Comparative case study	Examines three cases to compare examples of fast policy documents produced by an intergovernmental organisation (the OECD's PISA for Schools), an edu-business (Pearson's The Learning Curve) and an Australian state government education department (NSW's What Works Best)	Sweden, Finland, and Australia	Education
Coburn et al., 2020 Open access	Comparative case study approach of four large districts	Examines how district leaders use research in their instructional decision-making by presenting findings from 140 interviews with district leaders in four large urban districts.	USA	Education
Harris & Jones, 2018	Comparative study	Reflects upon the centrality of context in the process of policy implementation. Draws upon evidence from a comparative study of educational change and transformation in seven education systems: Australia, England, Indonesia, Hong Kong, Malaysia, Russia, and Singapore	International	Education
Rickinson, Walsh, de Bruin, & Hall, 2018 Open access	Document analysis and interviews	Presents findings from Monash University Faculty of Education's pilot study with the Victorian Department of Education and Training (DET) on their use of evidence in policy development. The study used a combination of documentary analysis, interviews and (where possible) observation with DET staff.	Australia	Education
Rickinson, de Bruin, Walsh, & Hall, 2017 Open access	Document analysis and interviews	Explores how to understand and improve evidence-use by educational practitioners. The empirical study on which this paper is based was an indepth study of the use of evidence within educational policy development in Australia. It focused on the development of three specific education policies within the Victorian Department of Education	Australia	Education



1		with 25 policymakers who were actively involved in the development of these		
		policies.		
White, 2016	Interview analysis	The study comprised of two parts: interviewing policymakers (n = 20) and investigating the teacher education policy context within which they were working	Australia	Education
Ion, Iftimescu, Proteasa, & Marin, 2019 Open access	Interview analysis	Reports on findings from thirteen semi- structured interviews with Romanian representatives of national institutions in the field of education and policymakers from educational bodies at the national and local levels	Romania	Education
Honig & Coburn, 2008	Literature review	Examines literature on evidence use in school district central offices	USA	Education
Doberstein, 2017	Randomised controlled survey experiment	Finds that academic research is perceived to be substantially more credible than think tank or advocacy organisation research, regardless of its content	Canada	General
Pellegrini & Vivanet, 2021 Open access	Review of official documents	Analyses official documents by the European Commission and other organisations to identify the primary challenges and issues related to the development of a culture of evidence in Europe's education sector	Europe	Education
Cherney, Povey, Head, Boreham, & Ferguson, 2012	Survey analysis	Presents findings from a survey of academic educational researchers in Australia on their experience of research uptake and engagement with policymakers and practitioners	Australia	Education
Cherney, Head, Povey, Ferguson, & Boreham, 2015	Survey analysis	Examines data from a large Australian survey (n = 2,084) of policy-related officials in government agencies to provide insights into how certain preferences, constraints and organisational factors influence the ways in which policy personnel seek out and use academic social research	Australia	General
Head, Ferguson, Cherney, & Boreham, 2014 Open access	Survey analysis	Presents findings from surveys and interviews with two groups: middle-to-senior policy officials in the governmental sector, and senior social science academics.	Australia	General
Köster, Shewbridge, & Krämer, 2020	Survey analysis	Austria worked with the OECD to conduct a self-assessment exercise on evidence use among key decision makers at the federal and provincial levels (federal ministry and education directorate executives), regional level (school quality managers) and school leaders. Decision makers completed an online survey covering five areas that promote the capability, motivation, and opportunity to use evidence in decision making.	Austria	Education
Tripney, Kenny, & Gough, 2014	Survey & literature analysis	Reports on a European Commission— funded study that sought to identify and analyse different initiatives across Europe aimed at furthering research informed policymaking in education	Europe	Education
Ion, Stîngu, & Marin, 2019	Survey analysis	Analyses academics' perceptions in relation to the utilisation of their research	Romania	Education



		in policymaking in Romania. 115 academics working in schools of education answered the survey.		
Haecker, Lane, & Zientek, 2017	Survey analysis	Presents findings from a survey of 268 public school district central office administrators in Texas who manage a federal budget	USA	Education
Newman, Cherney, & Head, 2016 Open access	Survey and interview analysis	Presents findings from a survey of more than 2,000 policy officials and 126 indepth interviews with public servants in Australia	Australia	General
van der Arend, 2014	Survey and interview analysis	Reports on findings from a large-scale project which targeted public servants undertaking policy work in Australian federal and state departments to investigate their experiences around the availability and use of academic social research	Australia	General
Galway & Sheppard, 2015 <u>Open access</u>	Survey and interview analysis	Summarises two studies: surveys and interviews with provincial education policy leaders (2006 study); and survey and focus groups with school board leaders.	Canada	Education
Ion, Marin, & Proteasa, 2019	Survey and interview analysis	Presents findings from a survey of Romanian education academics. Quantitative data are complemented with qualitative data derived from in-depth interviews with 14 university managers from the main research-intensive universities.	Romania	Education
Goertz, Barnes, Massell, Fink, & Francis, 2013 Open access	Survey and interview analysis	Examines where and how a purposive sample of three state education agencies searched for, incorporated, and used research and other types of knowledge to design, implement, and refine state school improvement policies, programs, and practices	USA	Education
Massell, Goertz, & Barnes, 2012	Survey and interview analysis	Presents findings from 49 interviews and more than 300 completed surveys across three states, as well as documents describing school improvement policies and tools designed for district and school use	USA	Education
Penuel, Farrell, Allen, Toyama, & Coburn, 2018	Surveys and interview analysis	Draws on evidence from interviews and surveys of central office leaders in three large urban districts in the USA to investigate what research district leaders find useful	USA	Education
Nakajima, 2021 Open access	Survey experiment	Presents findings from: 1) a discrete choice experiment examining education policymakers' preferences for different types of research evidence; 2) an information experiment examining how education policymakers update their beliefs when presented with new research evidence	USA	Education
Oliver, Innvar, Lorenc, Woodman, & Thomas, 2014 Open access	Systematic review	Synthesises findings on barriers and enablers to evidence use in policy making using studies from health (primarily), as well as criminal justice, traffic policy, drug policy, and partnership working	International	General



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