

# APPRAISING RESEARCH FOR RIGOUR AND RELEVANCE

Approaching research with a **critical and questioning mindset** is essential for the quality use of research. Yet, this is a complex task that requires “a great deal of professional judgement” (Spencer et al., 2012, p. 140), alongside knowledge of what constitutes rigorous and relevant research (Cain & Graves, 2019).

## WHAT DOES THE RESEARCH SAY ABOUT APPRAISING RESEARCH FOR RIGOUR AND RELEVANCE?

To support educators to critically examine the “cacophonous claims about effective practices [that] abound” and determine whether they are relevant to their settings (Gorard & Cook, 2007, p. 309), the literature outlines several key strategies.

Appraising the **methodological rigour** of research involves considering whether the approach is reliable and can appropriately answer the question being asked (Nelson et al., 2017). In many cases, rigour is often appraised in relation to hierarchies of evidence (see Nutley et al., 2013, pp. 10-14), but these are not always helpful for educators and leaders (Farrell et al., 2022). For this reason, alternative measures of rigour can include:

- ◆ Whether the findings have been replicated by other researchers or are based on sufficient sample sizes (Levin, 2013); and
- ◆ Whether the researchers are transparent about their approach (Groothuisen et al., 2020).

Appraising the **contextual relevance** of research involves understanding whether the findings can effectively address your specific practice problem (Farley-Ripple et al., 2018). Yet, it also involves looking for research that “[spells] out, in fairly exact terms for [a specific] context, what will be needed to assure teacher and student success” and considering whether this is feasible in your setting (Gore & Gitlin, 2004, p. 41). Some common questions to ask when appraising for relevance are:

- ◆ Whether a study and its participants reflect the student population of the classroom it is to be used in (Spencer et al., 2012); and
- ◆ Whether the research aligns with the characteristics of the school context, including its geographical location, socioeconomic context, and available resources (Judkins et al., 2014).

Finally, given the challenges associated with accessing high quality research, educators can leverage their professional networks to help with this task. Research can be accessed via journals from professional associations or educational research-to-practice networks (e.g., [ResearchED](#) and [edureading](#)) (Cain & Graves, 2019). Connections with colleagues and other schools can also be useful avenues to access and share quality research (Parker et al., 2020).

## WHAT DO AUSTRALIAN EDUCATORS SAY ABOUT APPRAISING RESEARCH FOR RIGOUR AND RELEVANCE?

Australian teachers and school leaders are clear about the importance of appraising research for its relevance (referenced in 81% of interviews) and rigour (74% of interviews). Educators emphasised that these characteristics were crucial for research to be used well, with one middle school leader explaining:

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*“Well, I go by credibility, so if I believe that [the research] I am reading is credible, and I’m a historian by education, so I search and reference my sources. ... I have to have a look at what has been discussed and favourably viewed by several people, so I cross-reference. And then obviously, [the research] has to resonate with me ... because I do have firm beliefs [about] what should happen in the class too. I come with experience and knowledge, [so] if we align, I go.”*

In our first survey of 492 Australian educators, the top two approaches for appraising the rigour of research involved critiquing the research design and seeing whether sufficient evidence was provided to support the claims being made (see Figure 1). Yet, educators approached these tasks in a number of ways, including considering: the size of the sample, whether the researchers were clear about their approach, and whether their claims were also supported by other researchers.

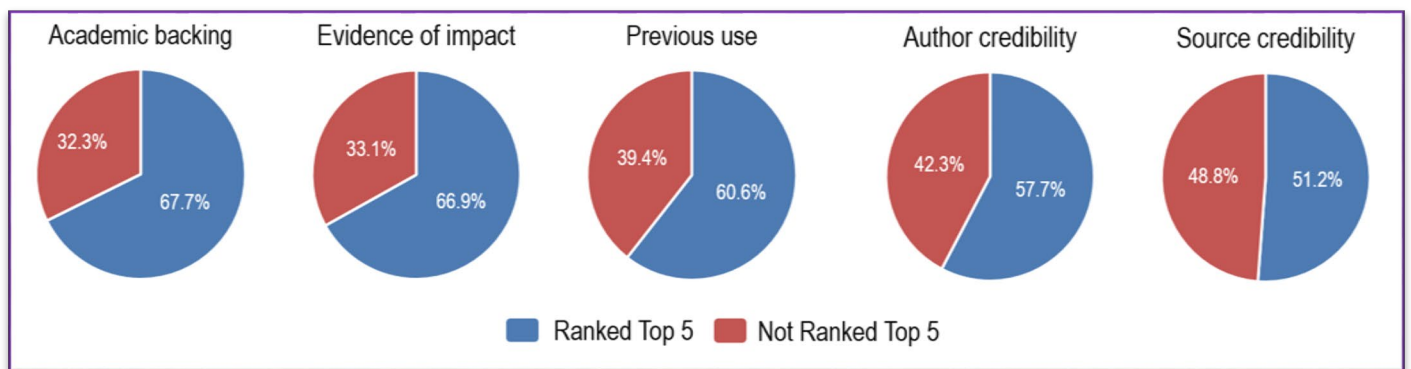


Figure 1: Top 5 approaches to appraising rigour of research

Our interview data also suggests that educators appraise the relevance of research differently, including its relevance to: student cohorts and their needs, school cultures, pedagogical problems, practice changes, school-wide decisions, subject disciplines, and teachers’ professional development needs (see Table 1). Across both the interviews and surveys, we noted a response pattern where school leaders were significantly more likely to appraise contextual relevance in relation to the alignment of research with school plans, while teachers examined its alignment with teaching practices.

This variation in how educators approach assessing the rigour and relevance of research, however, is a strength. It highlights how educators thoughtfully appraise research based on their own skills, their intended use for the research, and their role within the school. As one Senior Leader emphasised:

*“Research should be studied and examined carefully in a collaborative way so that it is not one person’s interpretation.”*



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Table 1: Educators' views of rigour and relevance

<i>High quality and rigorous</i>	<i>Contextually relevant</i>
“It’s got [to have] a strong research basis...either history or there’s multiple researchers in the field who are affirming [an] appropriate teaching practice based on research [where] clear impact [has been shown] over time”.	“It is important to understand the context and part of that is the culture of the school...and the vision and values that we work within. ... Any of the research that we bring into the school, we’re also then putting a lens over that of ‘How does this fit within what we value?’”
It needs to be “published and peer-reviewed ... and [draw on] widely accepted theories that have a scientific backing [and] have reasonable proof that their results are positive”.	“I know that a Year 12 student in my [school] is nowhere near the same as a Year 12 student in a mainstream school... [so I am looking for research that] addresses students who are 18 years of age, but are working at a six-year old level and ‘How they should be progressing’”.

This research summary was generated by the Monash Q Project. For further information, please refer to the Monash Q Project's website.



[Q Project Website](#)

## REFERENCES

- Cain, T., & Graves, S. (2019). Obtaining trustworthy research. In T. Cain (Ed.), *Becoming a research-informed school: Why? What? How?* (pp. 81-96). Routledge.
- Farley-Ripple, E., May, H., Karpyn, A., Tilley, K., & McDonough, K. (2018). Rethinking connections between research and practice: A conceptual framework. *Educational Researcher*, 47(4), 235-245. <https://doi.org/10.3102/0013189X18761042>
- Farrell, C. C., Penuel, W. R., & Davidson, K. (2022). “What counts” as research? Comparing policy guidelines to the evidence education leaders report as useful. *AERA Open*, 8(1), 1-17. <https://doi.org/10.1177/23328584211073157>
- Gorard, S., & Cook, T. (2007). Where does good evidence come from? *International Journal of Research and Method in Education*, 30(3), 307-323. <https://doi.org/10.1080/17437270701614790>
- Gore, J. M., & Gitlin, A. D. (2004). [RE]Visioning the academic–teacher divide: Power and knowledge in the educational community. *Teachers and Teaching*, 10(1), 35-58. <https://doi.org/10.1080/13540600320000170918>
- Groothuisen, S. E. A., Bronkhorst, L. H., Prins, G. T., & Kuiper, W. (2020). Teacher-researchers' quality concerns for practice-oriented educational research. *Research Papers in Education*, 35(6), 766-787. <https://doi.org/10.1080/02671522.2019.1633558>
- Judkins, M., Stacey, O., McCrone, T., & Inniss, M. (2014). *Teachers' use of research evidence: A case study of United Learning schools*. National Foundation for Educational Research (NFER) and United Learning. <https://www.nfer.ac.uk/publications/IMUL01/IMUL01.pdf>

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Levin, B. (2013). To know is not enough: Research knowledge and its use. *Review of Education*, 1(1), 2-31.  
<https://doi.org/10.1002/rev3.3001>

Nelson, J., Mehta, P., Sharples, J., & Davey, C. (2017). *Measuring teachers' research engagement: Findings from a pilot study*. Education Endowment Foundation (EEF) and National Foundation for Educational Research (NFER).  
[https://educationendowmentfoundation.org.uk/public/files/Evaluation/Research\\_Use/NFER\\_Research\\_Use\\_pilot\\_report\\_-\\_March\\_2017\\_for\\_publication.pdf](https://educationendowmentfoundation.org.uk/public/files/Evaluation/Research_Use/NFER_Research_Use_pilot_report_-_March_2017_for_publication.pdf)

Nutley, S., Powell, A., & Davies, H. (2013). *What counts as good evidence?* Alliance for Useful Evidence.  
<http://hdl.handle.net/10023/3518>

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>