Australian Education Research Organisation

Research reflection guide worksheet

This worksheet helps you to reflect on a piece of research. The research you choose to reflect on should be about a particular education policy, program or practice (that is, an approach) that you may be considering using in your school, service or classroom.

This worksheet is designed for reflecting on primary studies, which are individual studies reporting on data collected and analysed by the researchers themselves. It isn't designed for reflecting on research that summarises a body of evidence (for example, a literature review).

If you're an educator or teacher, using this resource to reflect on research can help you to make decisions about your practice. If you're a leader, you can use this resource to support your team to engage with evidence as part of their ongoing professional development.

Ways to use this resource

- Personal professional learning to become more familiar with research.

- Professional learning in a group, such as a community of practice – use the completed worksheets to discuss the education approach as team.

- Keep the completed worksheet as a record of decision-making about a particular approach.

- Revisit the completed worksheet as a reminder of the questions you may still have about an approach (and to focus your efforts on seeking answers).

- Use the questions to structure discussions about an approach with colleagues.

Related frameworks

Early Years Learning Framework
Principle 5: Ongoing learning and reflective practice

National Quality Standard
Standard 7.2: Effective leadership builds and promotes a positive organisational culture and professional learning community

Australian Professional Standards for Teachers
Focus Area 6.2: Engage in professional learning and improve practice

Australian Professional Standards for Principals
Professional Practice 2: Developing self and others

Using the worksheet

Choose a piece of research on an approach you're interested in and answer the series of guiding questions below. The questions will prompt you to consider:

- what the research says

- how relevant the research is to your context

- whether you should implement the approach

- what you can do to ensure the approach is used effectively.

Don't worry if you can't answer all the questions on this worksheet – it's fine to complete only the sections that are relevant to you. It's also fine to spend as little or as much time as you like completing the questions. An example of a completed research reflection guide worksheet is available on the Australian Education Research Organisation's (AERO's) website.

This worksheet is based on the AERO research reflection guide. It includes all of the content from the guide together with some additional prompt questions to help you think more deeply and aid decision-making. You don't need a copy of the research reflection guide to complete this worksheet but can refer to it if you wish.

This worksheet refers to key concepts related to education evidence and research. The last page of this worksheet lists some of these concepts.

Research reflection guide: My notes

Date: ....

About the research article

Title: ....
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Author/s: ....
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Journal: ....
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Publication date: ....

Objective questions

What does the research say?

What approach was evaluated?

Is the approach described clearly enough that I could replicate it?

Does the description raise any questions?

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Where and when was the research conducted?

Is the research recent enough to be relevant?

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Number of participants

Do the authors justify the sample size or discuss sample size in the limitations section?

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How was the approach evaluated?

What outcomes were measured?

Are these outcomes relevant to me?

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How were the outcomes measured?

Do the authors provide evidence that their methods for measurement are valid and reliable ways to measure these outcomes?

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Was there a comparison between a group who experienced the approach and a group who didn't?

How were participants assigned to each group? Was it random?

If not random, do the authors explain how the groups were similar enough for a comparison to be valid?

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What standard of evidence does the research meet?

What did the research find?

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Is this causal evidence or correlational evidence?

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Reflective questions

What connects with my experience?

In what ways is the research similar or different to my context?

What do the authors say about the context?

Does it appear that the context was important for the results or is it likely the approach would be just as effective in a different context?

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What excites me about the research?

What might be possible in my context?

What do I like best about this approach? Does anything concern me?

Do I feel motivated to try it in my context? Why or why not?

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Interpretive questions

What makes the approach work?

What does the research say about the key features that led to improved outcomes?

What resources and organisational features enabled success?

Does it seem that this would translate to my setting? Why or why not?

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Would there be a benefit if I changed to this approach?

What am I currently doing?

How different is this approach to what I'm already doing?

How much would I be changing if I implemented this approach?

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Based on the research and my current practice, would changing be likely to lead to improved outcomes?

Why do I think this?

By how much are outcomes likely to improve?

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What adaptations would I need to make?

How aligned is this approach with existing system approaches?

Would I need to adapt the approach for my context? Why or why not?

If yes, what would I need to adapt? Why?

Will this affect the key features I identified above?

Could it make the approach less effective? More effective?

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What is the cost (time, effort, resources) of changing?

What is the cost to me or the children/students in terms of time, effort and resources?

Where will this time, effort and/or other resources come from?

If I implement this approach, what would it replace? Would I be replacing something I'm confident is effective?

What would be the consequences of replacing my existing approach for the children/students?

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Decisive questions

Should I implement the approach?

Are the benefits worth the costs?

How have I arrived at this conclusion?

How confident am I?

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If I implement the approach:

How can I rally resources to support implementation?

What support will I need and where can I find it?

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How will I be sure that implementation is effective?

What data will I need to collect?

How will I know that any effects are due to the changes of approach and not something else?

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Key concepts

causation (or cause(s)/causal/causal evidence)

Causation is when one element, factor or event is known to cause another (for example, a particular teaching practice is known to lead to improvements in student test scores). To prove causation between 2 things (let's call them A and B), researchers need to show:

1. that there is an association between A and B;
2. that A happens before B; and
3. that B is not caused by a third thing (that is, C or D).

In education settings, proving causation is often challenging because of the many influences on teacher and student outcomes.

comparison group

A comparison group is a group of people in a research study whose responses or outcomes function as a comparison against which the effect of the approach being tested can be measured. Comparison groups receive a different treatment to the group receiving the treatment or approach being tested. There can be any number of comparison groups in a study. A comparison group is called a 'control group' when it receives no treatment at all.

correlational evidence

Correlational evidence shows that use of the approach is associated with a change in outcomes, but doesn't rule out the possibility that the change was caused by something else, or by chance.

literature review

A literature review identifies, evaluates and synthesises the relevant literature within a particular field of research. It usually discusses common and emerging approaches, notable patterns and trends, areas of conflict and controversies, and gaps within the relevant literature. Literature reviews do not usually explicitly state the methods used to identify, evaluate or synthesise the relevant literature.

random assignment

If participants were randomly assigned to groups, it means that the group a person was in is determined by chance alone. This helps ensure that the 2 groups are equivalent at the start and any differences in results are due to the program, not to chance or other factors.

validation (or validate)

Validation is the process of determining whether the way you are measuring something is appropriate given the research aims and conclusions of the study. There are many considerations when determining whether the way you measure is 'appropriate'. These include but are not limited to:

- whether the way you measure is reliable (for example, will different researchers score a teacher in the same way when using this observation framework?)

- whether it provides data that accurately represents the outcome (for example, is a student's score on this twenty-question reading comprehension test an accurate reflection of their reading ability?)

- whether the way you measure should be used given the consequences (for example, should we rely on this data when deciding whether to ask a student to repeat a year?).

sample size

When studying a large population, it is not possible to include every individual. Research studies usually include a certain number of individuals to represent the population. Those that are included in the study are referred to as a sample of the population. Sample size refers to the number of people in a sample. Generally, the larger the sample size, the more accurate the research findings. If a sample is too small, it will not provide a fair picture of the whole population.

For more information visit **edresearch.edu.au**