



Using Existing Research in Your Career Development Practice

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Using Research for Evidence-Informed Career Development Practice

Research 101 for CDPs

- Scientific approach
- Quantitative and qualitative research
- Evidence Continuum

Using Existing Research in Your Career Development Practice

- Locating studies
- Assessing studies
- Reading research

Conducting Research in Your Career Development Practice

- Locating data sources
- Collecting data
- Bridging the practitioner-researcher gap

Recording available!

You are here!

Next week!

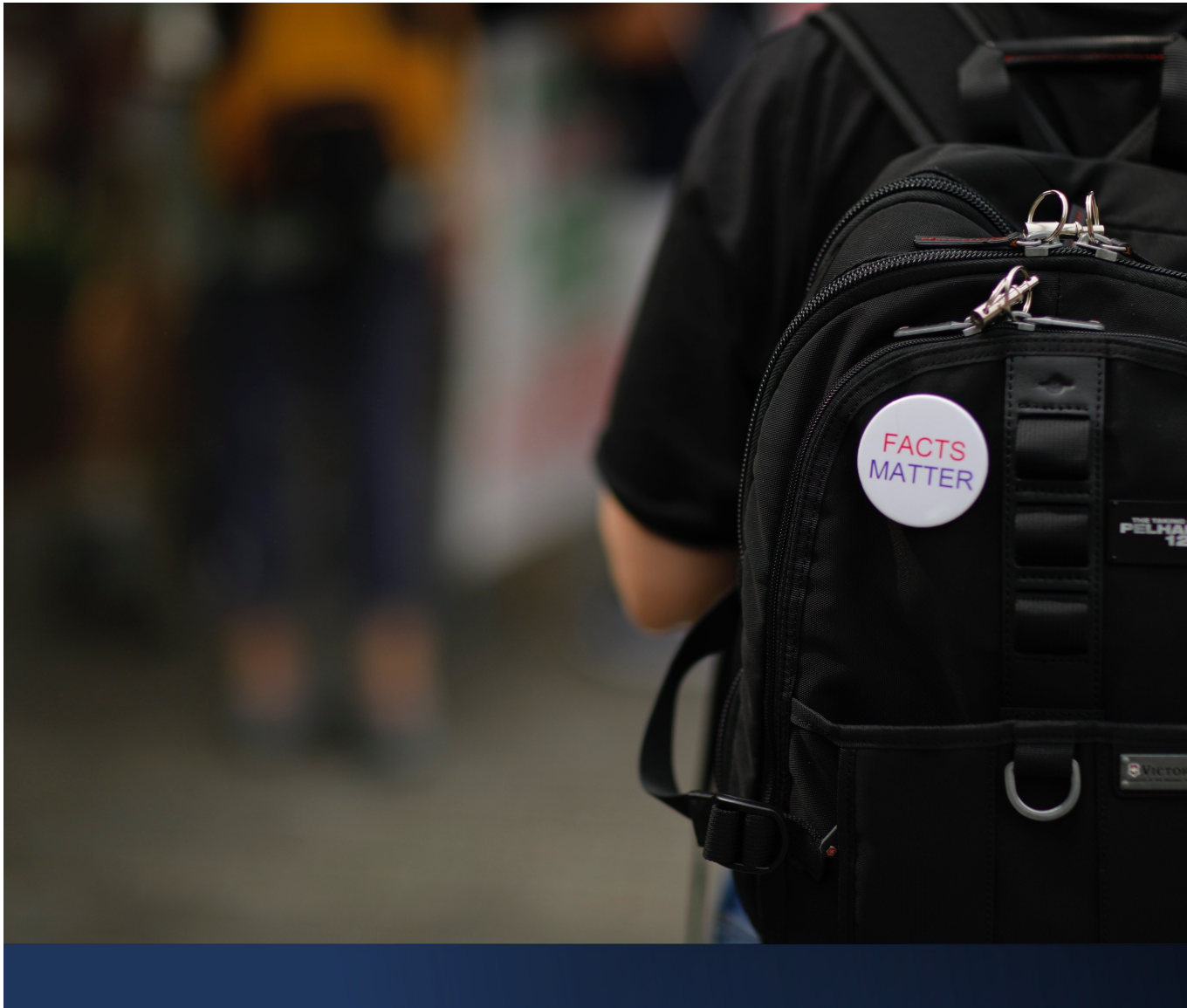
By the end of
this webinar,
you should be
able to:

- Explain how knowledge of evidence and research relates to your work as a career development practitioner;
- Identify strategies to locate research studies relevant to your work;
- Explain the difference between peer-reviewed and non-peer-reviewed research;
- Identify the core components of a research report;
- Read research reports critically using the “Two-Pass” Approach;
- Describe how cognitive biases can influence how we read and interpret research, and consider approaches to challenge these biases; and,
- Develop strategies to assess the trustworthiness of research.

To achieve this,
please be prepared
to:

- Engage in active notetaking
- Write down responses to action steps and reflection questions
 - Share responses in the “question” box
- Complete a self-test at end
- Submit questions via question box

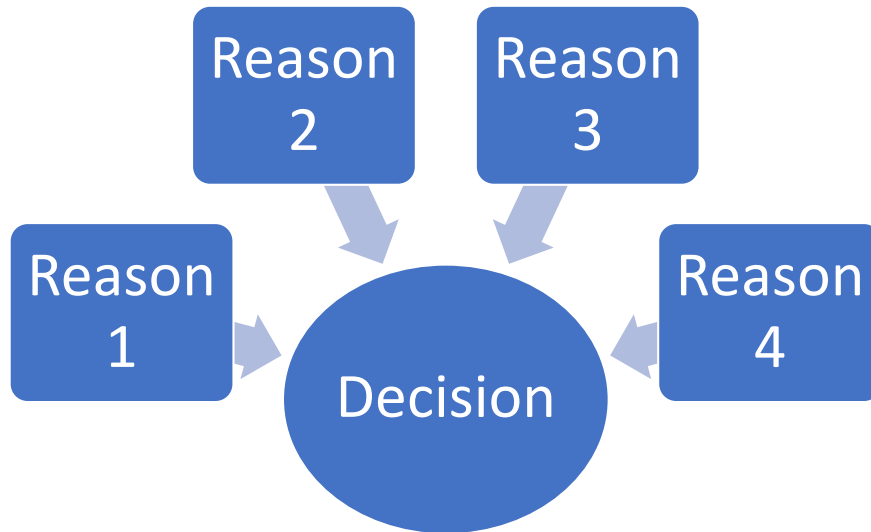




What Do We Mean by 'Evidence'?

- Evidence: data/information that provide basis for a position/point of view
 - Facts
 - Observations (from **research**, own experience, etc.)

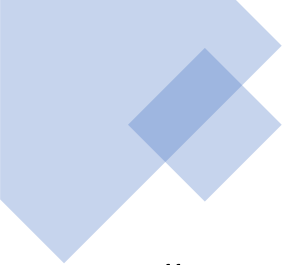
Why evidence (sometimes) matters to decision-making



Decisions made based on **reasons**

Evidence-informed decision-making: **evidence** as a key reason to support the conclusion

→ Need to ensure using good quality evidence



“Many career development practitioners (CDPs) strive to make decisions based on evidence. This is a good thing. ... Evidence-informed approaches can help CDPs adjust client practices to achieve superior outcomes, increase credibility in efforts to influence policy, and assist in obtaining or maintaining funding.”
– Berdahl 2022





Does your organization use evidence to inform decision-making? If so, how does it obtain this evidence?

Selected responses:

- we use LMI information from Government websites both provincial and national.
- we collect evidence via our "ROI Tool" (questions in .xls that are translated into visuals by Power BI)
- we collect LM information to help clients make an informed decision about going back to school or looking for work
- we use paper evaluations and looking back at numbers of previous outcomes
- We use client surveys as well as data collected from pre-program start through out 18 months post-program completion
- sometimes looking at what other institutions are doing

Ways to Engage with Research

Published Research

- Need to locate studies
- Need to read critically
- Need to use responsibly (interpretation, situating in larger literature, citation)

Secondary Data Analysis

- Need to locate data
- Need to analyze and interpret data (skills, time)
- Need to use responsibly (ethics, interpretation, citation, records)
- Need to situate in larger published research literature

Primary Data Collection and Analysis

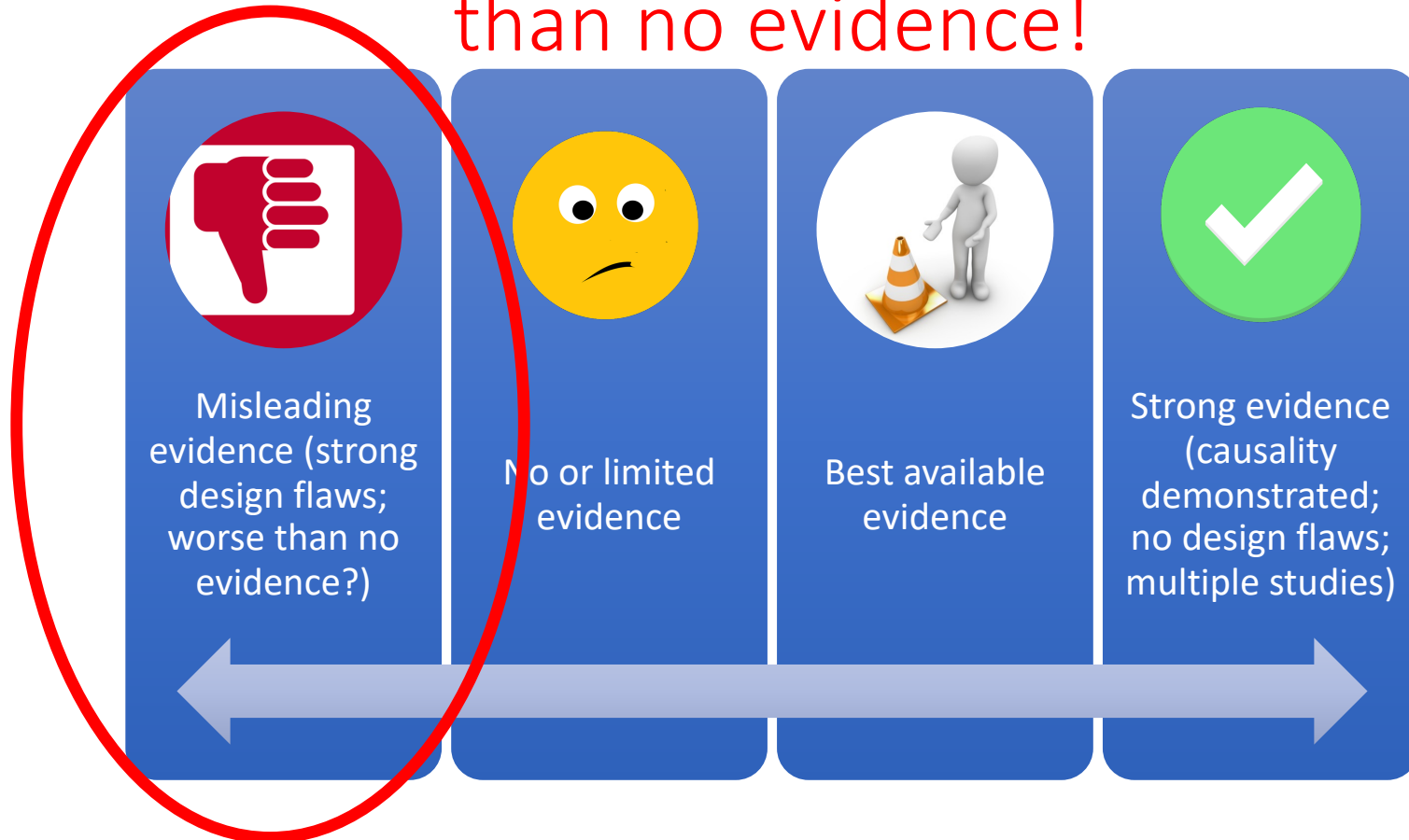
- Need time, funding, design expertise
- Need to collect data ethically
- Need to analyze and interpret data (skills, time)
- Need to use responsibly (ethics, interpretation, citation, records)
- Need to situate in larger published research literature

Locating research studies to inform your work

- ✓ Credible
- ✓ Accessible
- ✓ Relevant



Remember: misleading evidence is worse than no evidence!



Academic Sources versus Other Sources

Academic Literature

- Academic books and journals
- Mix of restricted access (behind paywall) and open access
- Available through university library databases
 - Tip: click the “peer reviewed journal articles” box; click the year limits box (2010 – 2022)
- Typically peer-reviewed (“refereed”)

Other (“Grey Literature”)

- Newspaper and magazine articles
- Government, think tank and NGO reports
- Professional journals
 - Important: the word “journal” in the title does not mean it is an *academic* journal
- Typically *not* peer-reviewed

What is peer reviewed? Why does it matter?



Work clearly has gone through blind review process



Listed clearly on journal's/publisher's webpage

“Peer review is designed to assess the validity, quality and often the originality of articles for publication. Its ultimate purpose is to maintain the integrity of science by filtering out invalid or poor quality articles. ... peer review functions as a filter for content ...Running articles through the process of peer review adds value to them.” - Wiley

Challenge: Predatory Journals and Illusions of Peer Review

“Predatory journals are a global threat. They accept articles for publication — along with authors’ fees — without performing promised quality checks for issues such as plagiarism or ethical approval. Naive readers are not the only victims. Many researchers have been duped into submitting to predatory journals, in which their work can be overlooked.” — Nature, 2019



Get Me Off Your ****ing Mailing List: Predatory Journals

<http://www.vox.com/2014/11/21/7259207/scientific-paper-scam>

“In 2005, computer scientists David Mazieres and Eddie Kohler created this highly profane ten-page paper as a joke, to send in replying to unwanted conference invitations. It literally just contains that seven-word phrase over and over, along with a nice flow chart and scatter-plot graph an Australian computer scientist named Peter Vamplew sent it to the *International Journal of Advanced Computer Technology* in response to spam from the journal. Apparently, he thought the editors might simply open and read it. Instead, they automatically accepted the paper — with an anonymous reviewer rating it as "excellent" — and requested a fee of \$150.”

- Joseph Stromberg, Nov. 2014

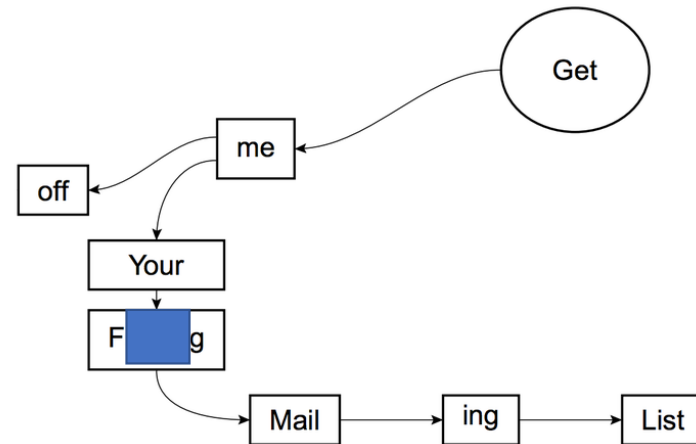
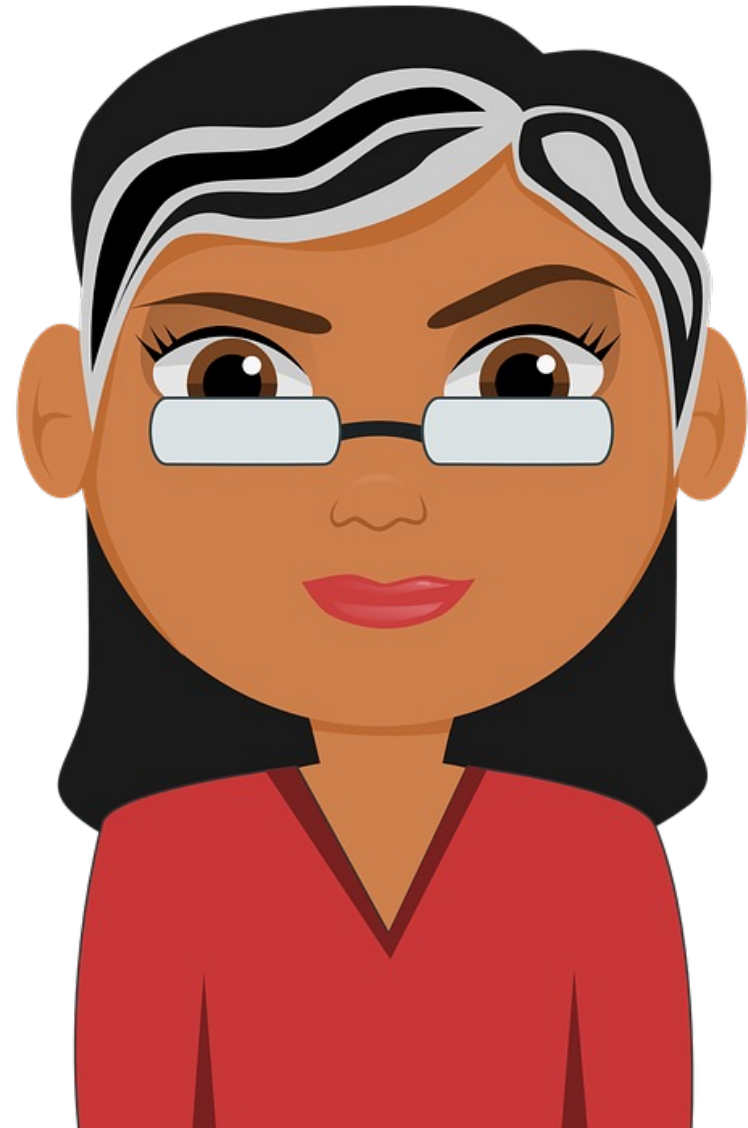


Figure 1: Get me off your f****ing mailing list.

Bottom line:
responsible use of
published research
requires due diligence!

- If peer reviewed, confirm legitimacy
 - <https://beallslist.net/>
- If grey literature, carefully consider source
- Librarians are *excellent* sources of knowledge!



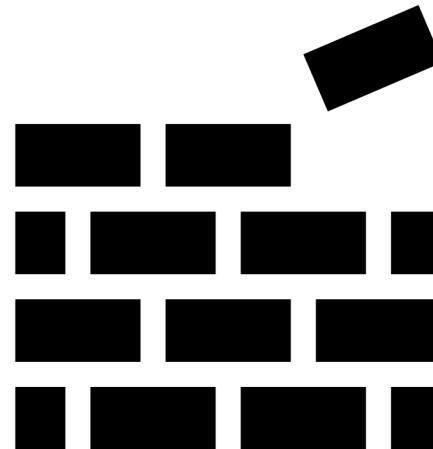
Peer Reviewed Research: Open Access versus Paywalls

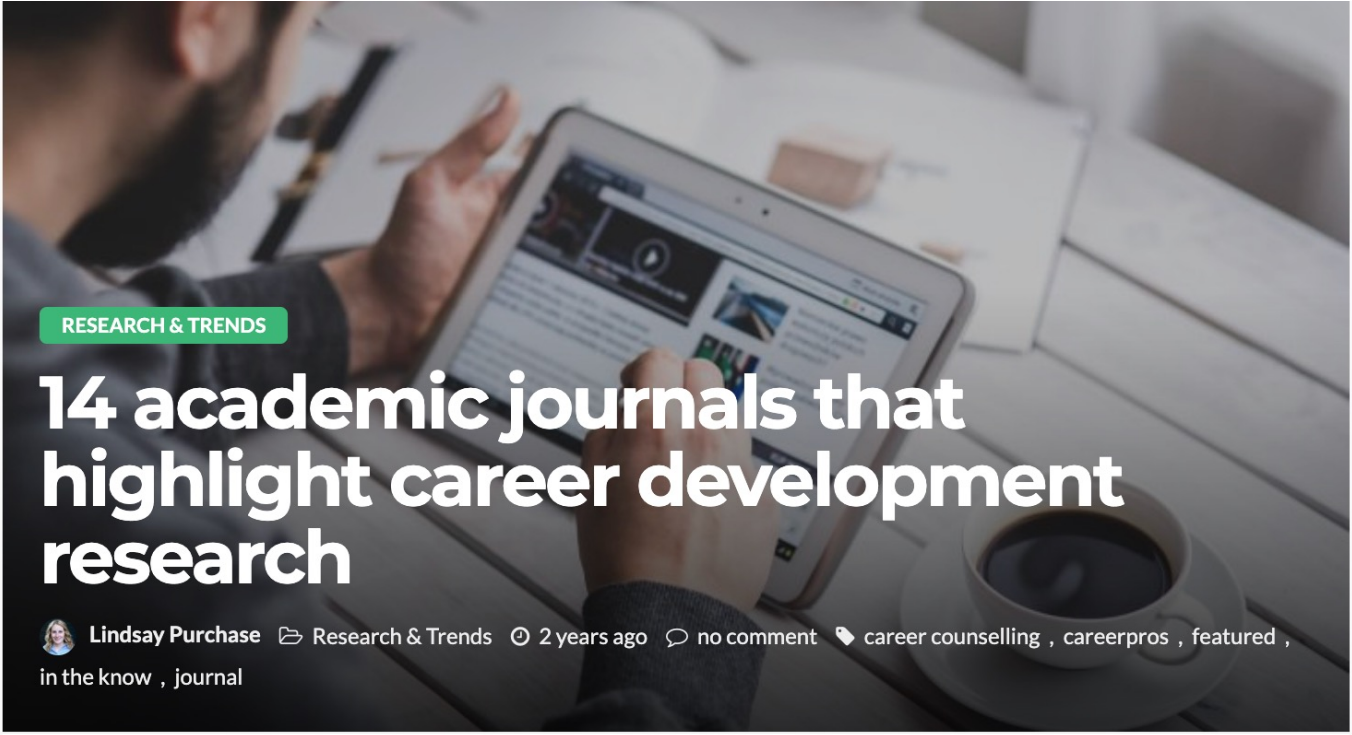
Hints:

- Use library databases

Check authors' websites,
ResearchGate, and Google
Scholar pages




- Email corresponding authors
directly





RESEARCH & TRENDS

14 academic journals that highlight career development research

 Lindsay Purchase  Research & Trends  2 years ago  no comment  career counselling , careerpros , featured , in the know , journal

Stay informed about the the latest in career development theory and practice with these journals from Canada and around the world. This not a comprehensive list of journals that would be of interest to career professionals; psychology, education and counselling journals – among others – also publish articles related to career development.

Finding *relevant* studies

- Library databases
- Statistics Canada and government agencies
- Organizations
 - CERIC
 - Future Skills Centre
 - Canadian Career Development Foundation
- Google scholar
- Conferences
- Internet searches

How would you like to use published research to inform your work?

I want to use published research to: (identify 1-3 specific things)

1. (e.g., identify best practices in online career counselling)
2. (e.g., keep on top of new knowledge)
3. (e.g., create an evidence base for my grant application)

What actions will you take to move these forward?

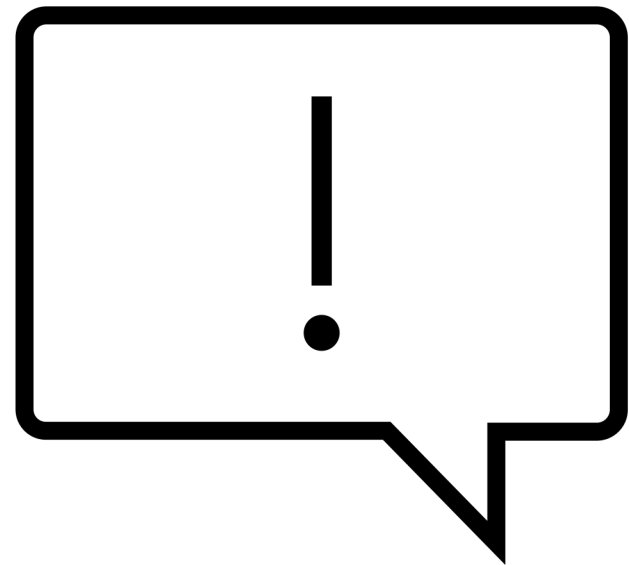
To achieve this, I will: (identify specific next step)

1. (e.g., search key word “online” in the *Canadian Journal of Career Development*)
2. (e.g., sign up for new issue alerts from three journals)
3. (e.g., locate ten journal articles to start a literature review)

Share responses in the “question” box

Keep in mind...

- Research reports are *arguments*. Researchers are making a case that:
 - The evidence is credible
 - The evidence supports the conclusions
- Readers have a responsibility to critically assess the researchers' argument.



Research report core components

(label names
will vary)

Abstract

- Purpose of study, core findings.

Introduction

- Argument/thesis that study will support

Literature Review

- What was previously known

Research Design

- How the data were collected; strengths and limitations

Research Findings

- Data presentations

Discussion and Conclusion

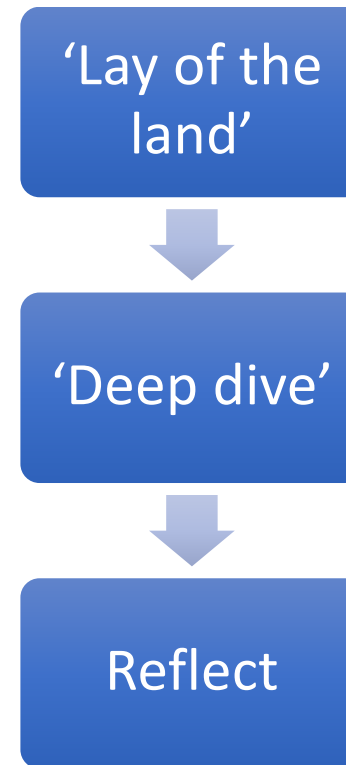
- Connecting data to the argument

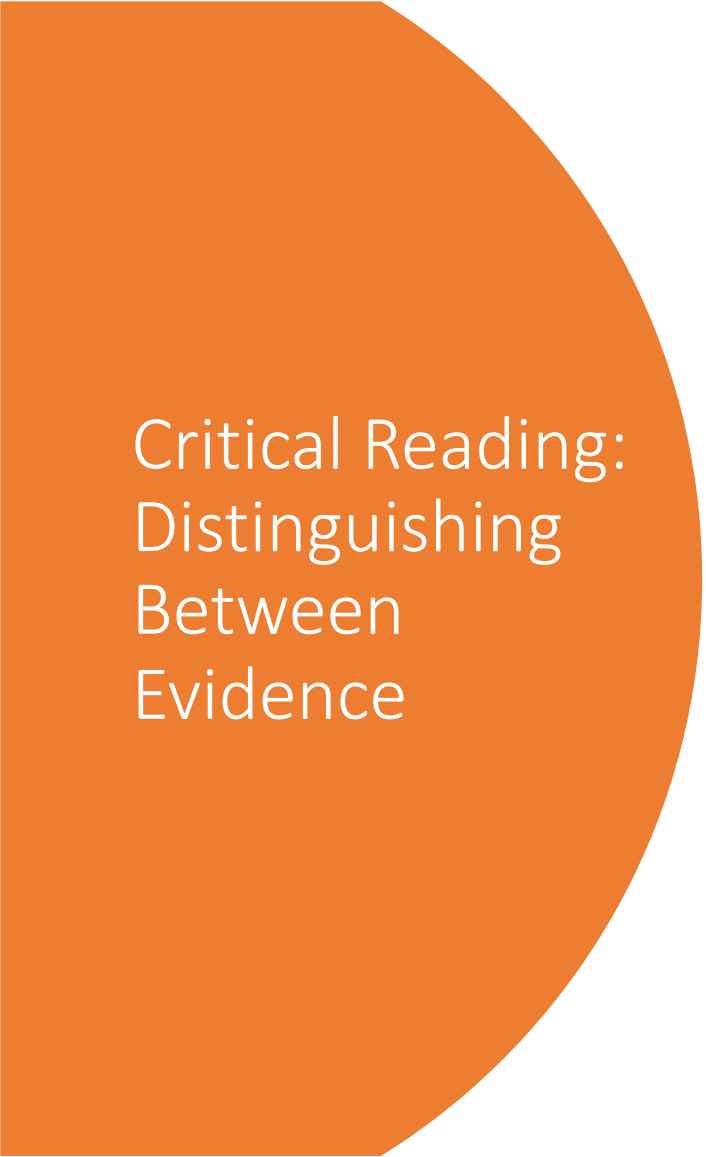
References

- Works cited

Two Pass Approach to Critically Reading Research

- **FIRST:** get sense of material, argument, trustworthiness
 - Skim abstract, introduction to clarify research question
 - Skim introduction to clarify argument to be made
 - Skim methods section to clarify methodology
 - Skim findings, conclusion to link back to argument
- **THEN:** read article
 - Assess argument
 - Assess trustworthiness




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Critical Reading: Distinguishing Between Evidence

“our aim is not to learn how to find the perfect study. No such study exists. Every study has some limitations. Instead, we examine how to distinguish between evidence that, despite its relatively minor limitations, merits guiding our practice versus more seriously flawed evidence that should be viewed more cautiously.”

- Rubin 2008, 38

A decorative yellow dashed line in the bottom right corner, consisting of several short, curved segments.

Challenges to Objectivity

Motivated reasoning:
tendency to deliberately
interpret evidence to confirm
pre-existing belief

Confirmation bias: “the
seeking or interpreting of
evidence in ways that are
partial to existing beliefs,
expectations, or a hypothesis
in hand.”(Nickerson 1998)

Disconfirmation bias:
tendency to highly critical of
information that contradicts
one’s preexisting beliefs

“arguments incompatible
with prior beliefs are
scrutinized longer, subjected
to more extensive
refutational analyses, and
consequently are judged to
be weaker than arguments
compatible with prior
beliefs.” (Edwards and Smith
1996)

A close-up photograph of a hand holding a branch with two bright red cherries. The background is dark and out of focus, highlighting the cherries and the hand. The image is positioned on the left side of the slide.

Objectivity, Cognitive Biases and Evidence Utilization

Overall, we humans tend to:

- attribute more expertise to those whose findings are consistent with our pre-existing beliefs, and less to those whose findings are inconsistent with our pre-existing beliefs
- Cherry-pick in our use of information
- Hold impossible expectations for arguments/evidence that are inconsistent with our pre-existing beliefs

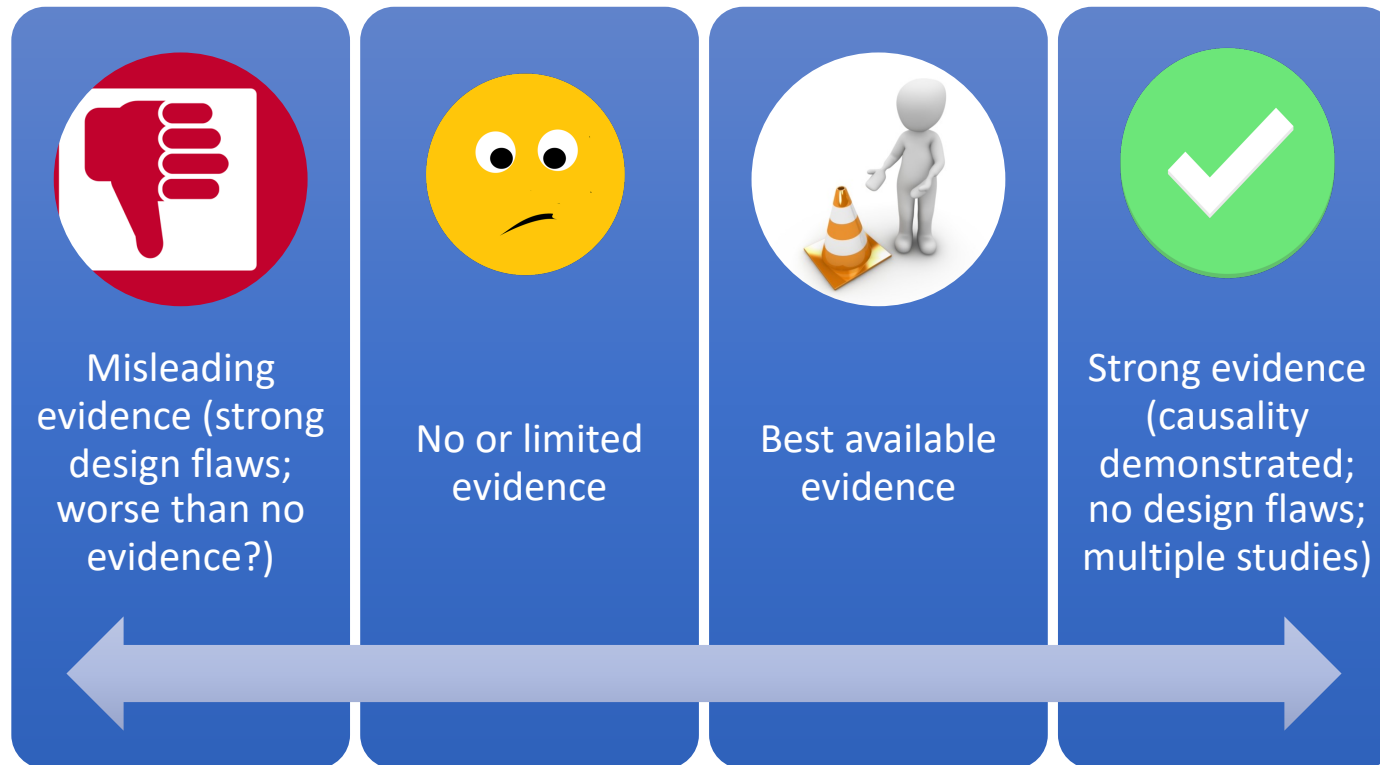
Cognitive biases →
risk “research
nihilism” as excuse
to dismiss evidence
that does not
conform to pre-
existing beliefs

“it is very easy to find flaws with all studies. It is much more difficult, though, to teach people to differentiate between limitations and fatal flaws; that is, to judge whether the problems are serious enough to jeopardize the results or should simply be interpreted with a modicum of caution. Without this judgment, it is easy to become nihilistic, feeling that no study can be believed...” – Edward J. Mullen and David L. Streiner 2004, 118

The importance of research literacy

“The challenge for CDPs, of course, is knowing how to engage with evidence responsibly and ethically. As a practitioner, you can quickly go online and find an abundance of information available, of varying quality and trustworthiness. The risk of “doing your own research” is that, **as a non-expert, you can be misled by poor-quality studies and can easily misinterpret the results of good-quality studies.**” – Berdahl 2022

The importance of understanding the Evidence Continuum



Commit to considering both individual studies *and* larger bodies of knowledge



Quality of evidence: examination of *individual studies*

Quantity of evidence: examination of *body of knowledge*

- Argument lacks evidence → argument is not convincing
- Argument supported by small number of studies → argument *somewhat* convincing
- Argument supported by several different lines of evidence → argument is convincing

Commit to using critical reading to distinguish between evidence

- Assess the strengths of a given study, and how it can help us understand (describe, explain) reality.
- Assess the limitations of a given study, and its limitations in helping us understand (describe, explain) reality.
- Assess if there is a combination of studies (bodies of evidence) with similar findings that gives us greater confidence in our understanding (descriptions, explanations) of reality





Checklist questions for individual studies

- What exactly is the argument?
- Do the authors present a balanced review of existing research that both supports and refutes their position?
- Are the key terms clearly defined?
- Is the methodology adequately explained?
- Is the analysis balanced?
- Is there a clear connection between the evidence provided and the conclusions drawn?
- Overall, do you feel that the argument is strongly, somewhat, or not at all supported by the evidence?



Checklist questions for bodies of literature

- Are systematic reviews, review studies, or literature reviews available?
- How many good quality studies exist? Do they point to similar conclusions?
- How recent are the studies? Is there reason for concern about contemporary relevance?
- Where did the studies occur? Is there reason for concern about contextual relevance?

Tip: use a literature review spreadsheet



Reflection Point

How can I start to make (more) use of published research in my work?
What is an easy first next step?

Share responses in the “question” box

Self-Assessment

- How does knowledge of evidence and research relate to your work?
- How can you locate research studies relevant to your work?
- What is the difference between peer-reviewed and non-peer-reviewed research?
- What are the core components of a research report?
- What is the “Two-Pass” Approach to reading research studies?
- How do cognitive biases influence how we read and interpret research? What can you do to challenge these biases?
- What strategies can you use to assess the trustworthiness of research?



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LinkedIn:
[linkedin.com/in/LoleenBerdahl](https://www.linkedin.com/in/LoleenBerdahl)



Questions? Please put in the "question" box!