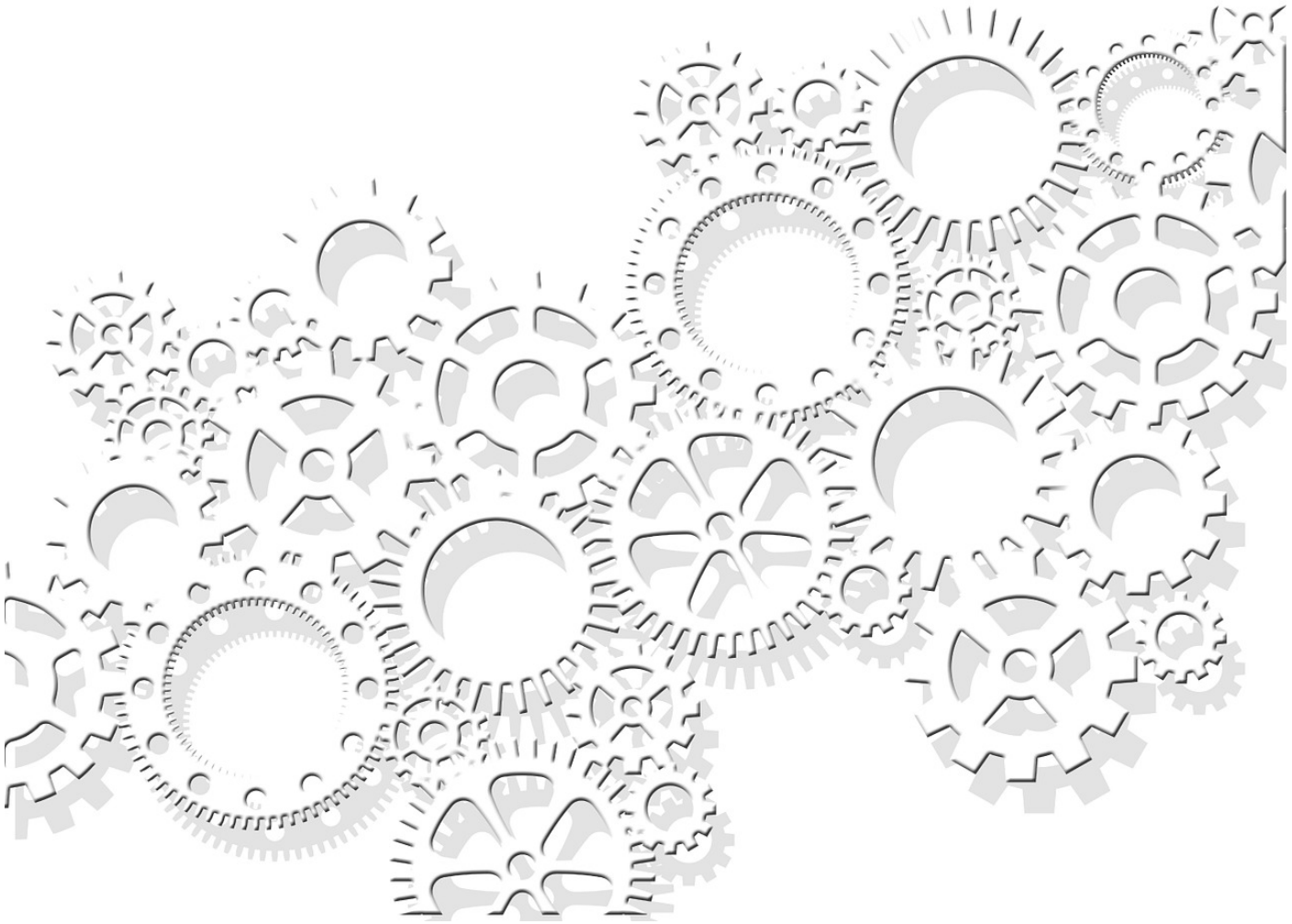
MODULE 2 ACCESSING EVIDENCE

Evidence-Informed Policy Making Training

RECAP OF PREVIOUS DAY OR SESSION



MODULE 2 OBJECTIVES

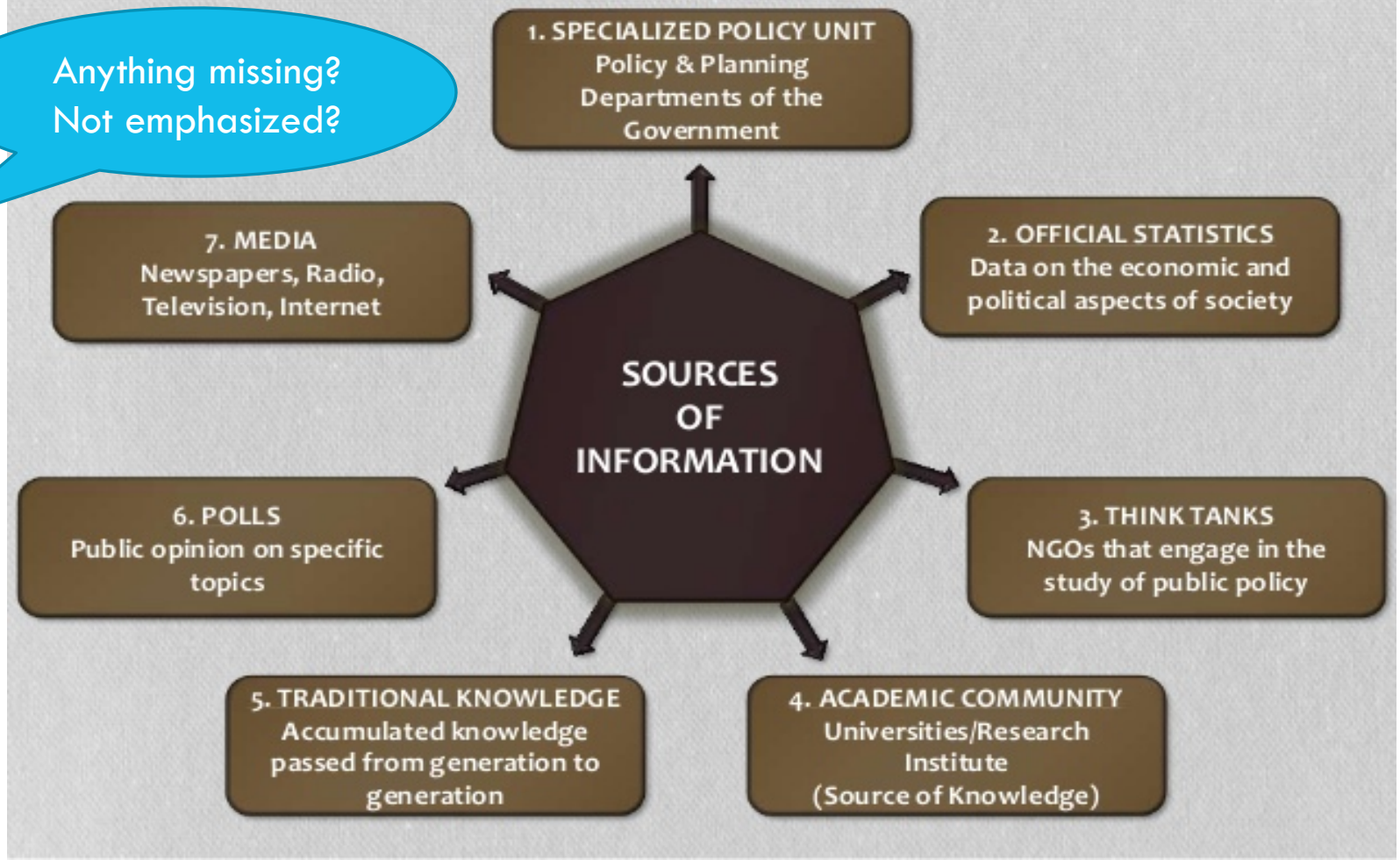
At the end of this module participants will:

- Know tips for engaging with researchers for increased access & use of evidence
- Identify relevant high-quality search engines/databases for conducting searches
- Explain steps in a search strategy
- Know Boolean search terms & tips for searching the Internet
- Identify search terms & relevant sources for searching for their policy question
- Describe characteristics of quality sources of evidence
- Demonstrate effective searching, assessment of sources & development of components of their own search strategy

GROUP BRAINSTORM:

WHERE DO YOU GET EVIDENCE?

Major Sources of Information in Policy Research



Gurung, P. (2014). *Role of Research in Policy Making (in terms of policy research)*. http://www.slideshare.net/PabitraGurung/role-of-research-in-policy-making-in-terms-of-policy-research

PERSON-TO-PERSON CONTACT IS ESSENTIAL

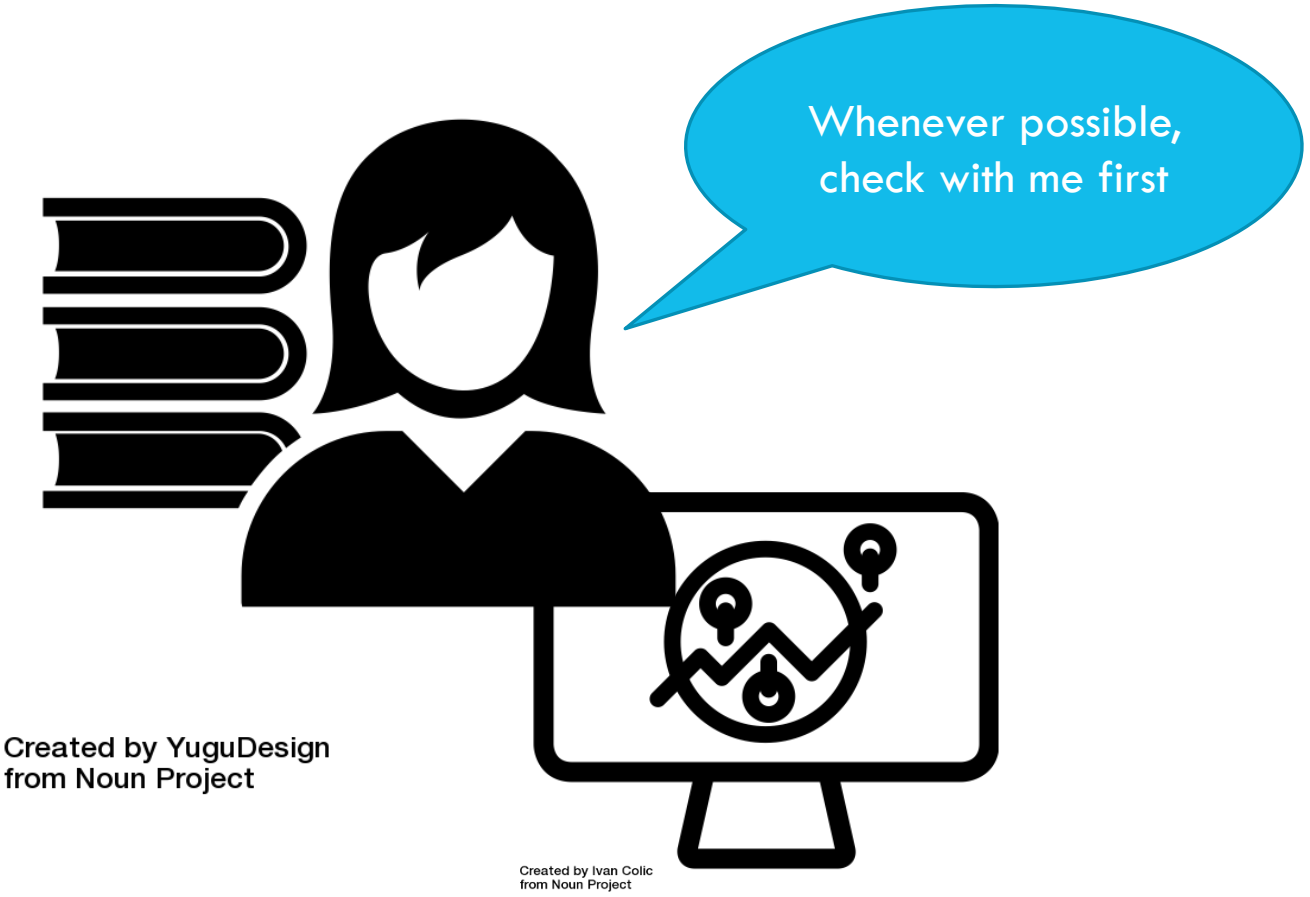
- Establish and build relationships with trusted ‘experts’, opinion-leaders, academics, researchers, evidence generators

- Network & engage with those who can help

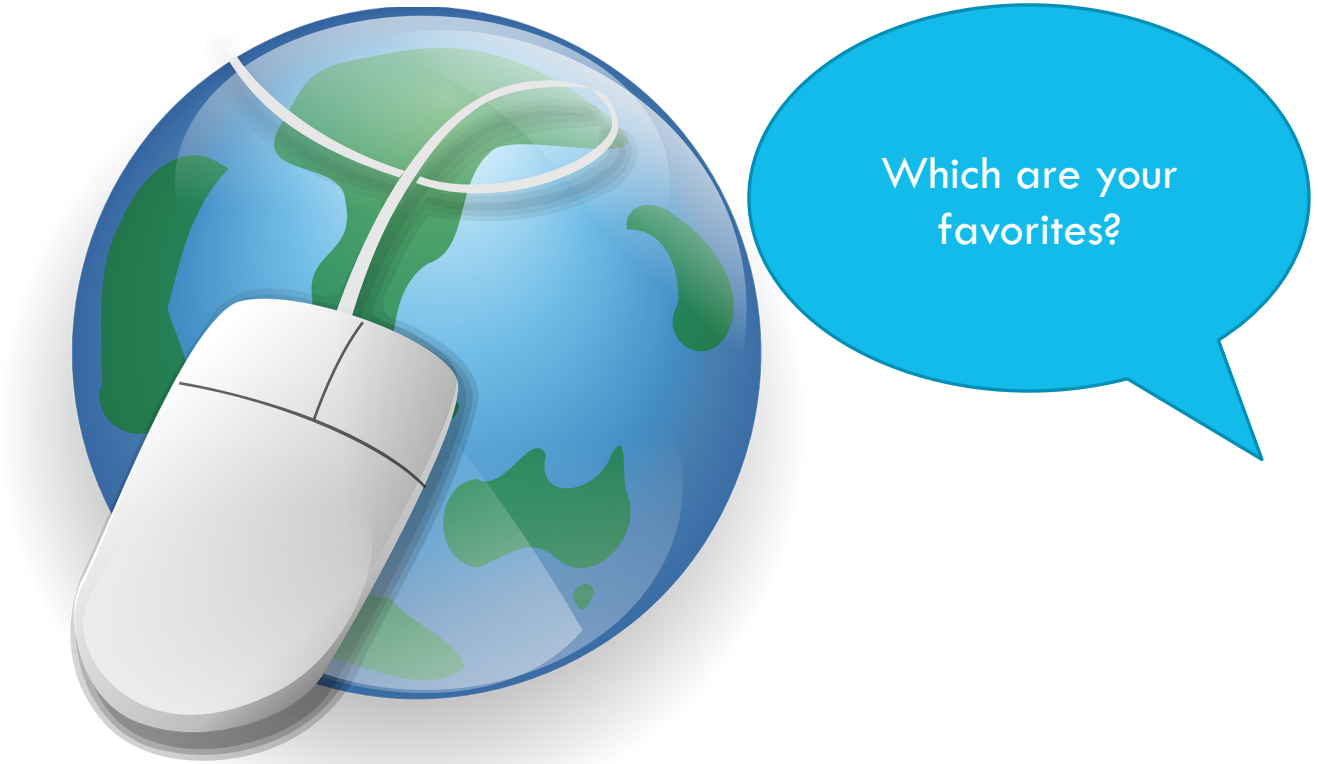
TIPS FOR LINKING WITH EXPERTS, RESEARCHERS & RESEARCH INSTITUTIONS

- Know top researchers in your area
- Make initial contact
- Inform them of key policy issues that you wish their research could answer
- Involve them in policy-making processes; invite to meeting
- Request them to involve you in conferences, meetings & studies
- Attend key scientific conferences in your area of interest
- Subscribe to newsletters & 'communities of practice' of research institutions

TOP SOURCES OF EVIDENCE



TOP SEARCH ENGINES, REPOSITORIES & DATABASES



https://pixabay.com/en/mouse-globe-clean-internet-306274/

TOP TIER DATABASES & SEARCH ENGINES FOR HEALTH

Google? Really?

1. Google*
2. Google Scholar*
3. HINARI*
4. Africa Index Medicus
5. Cochrane
6. POPLINE
7. PubMed
8. Research for Life
9. WHO databases
10. Development Experiences Clearinghouse (DEC)

* If nothing else, at least learn to use these.

TOP THREE SEARCH ENGINES

www.Google.com Most-used; more than three billion searches each day. Hunt in publicly accessible documents offered by web servers vs. database search.

From a librarian: "Using general Internet search engines such as Google to identify potential studies is a good resource. Google may be used to retrieve current (both published and unpublished) studies. Google will have more grey literature.

TOP THREE SEARCH ENGINES

www.scholar.google.com/-- indexes the full text of scholarly literature across formats and disciplines. Includes most peer-reviewed online journals of Europe's and America's largest scholarly publishers, plus non-peer reviewed journals. Contains ~ 160 million documents.

From a librarian: "Google Scholar is good because it is peer reviewed. Both Google and Google Scholar will give you a lot (neither is "indexed" - read by staff who apply index terms). These two simply match your terms – so you may have to put in a lot of different terms. E.g., you can't assume 'vaccine' will get everything vaccine related (e.g. vaccines, immunize, immunizations). You have to put in all possible alternatives. …And you'll get duplicates."

TOP THREE SEARCH ENGINES

www.who.int/hinari/en/ -- HINARI Access to Research in Health Program provides free or very low cost online access to major journals in biomedical and related social sciences to local, not-for-profit institutions in developing countries. Up to 13,000 journals (in 30 different languages), 29,000 e-books, 70 other information resources are now available

From past EIPM workshop participants, "We like HINARI. Lots of value."

USE MULTIPLE DATABASES

The idea of evidence-informed is to look at everything. Ensure you are getting all sides of the issue by doing in search in multiple databases.

Check out this great resource:
Guidance note on using evidence. 2016. DFID Research and Evidence Division

THE SEARCH STRATEGY

https://pixabay.com/

GROUP BRAINSTORM:

WHAT STEPS DO YOU TAKE WHEN SEARCHING?

https://pixabay.com/en/stepping-stones-river-stepping-help-763985/

STEPS OF A SEARCH STRATEGY

A lot of can be done away from the computer

1. Plan!
2. Define your information need – based on question
3. Identify potential sources and limiters
   Which databases? Unpublished studies? Dates? Language?
4. Identify search terms & cluster them
5. Launch search - start wide & keep refining
6. List results
7. Evaluate results
8. Record your search strategy
9. Document your references

Strategies vary and they're iterative

STEP 1 & 2

PLAN & DEFINE YOUR INFORMATION NEED

- Work smart: take a few minutes to think it through
- Define the information are you looking for? Form a question, which focuses need & defines relationships.
  - Specific or general?
  - Statistical data?
  - Quantity and depth for general information?

STEP 3

IDENTIFY POTENTIAL SOURCES & LIMITING FACTORS

Sources:

- Online journal databases – which specific databases/journals?
- National level reports - Demographic Health Surveys, Census reports
- Local research institutions (websites)
- Grey literature

Limiting Factors:

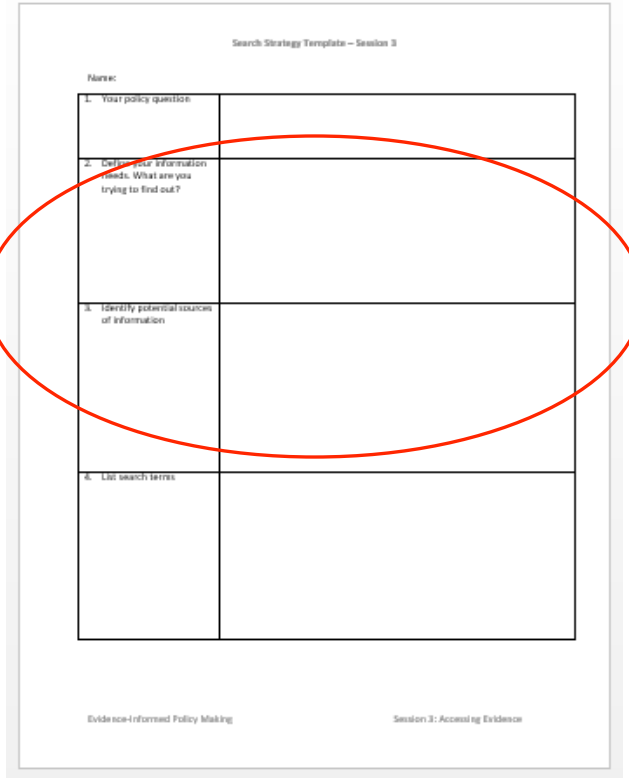
- Document type codes: primary studies only? Study design? Systematic reviews?
- Geographic
- Time period
- Language

INDIVIDUAL ACTIVITY:

DEFINING INFORMATION NEED & IDENTIFYING SOURCES

Worksheet: Search Strategy Template

Instructions: Define information need & identify potential sources [15 min]


Search Strategy Template – Session 3

Name:

1. Your policy question	
2. Define your information needs. What are you trying to find out?	
3. Identify potential sources of information	
4. List search terms	

Evidence-Informed Policy Making Session 3: Accessing Evidence

STEP 4

IDENTIFYING SEARCH TERMS: KEYWORDS

Start with what you know about your topic.

STEP 4

IDENTIFYING SEARCH TERMS

Careful choice of search terms is vital:

- What key words do you think will appear on the site/ article you want?
- What key concepts is it a part of or related to?
- Are there any synonyms for these keywords or concepts?
- Are there any alternative spellings for your keywords/ concepts (e.g. American English)
- Are plurals or capitalisation involved?

EXAMPLE OF CLUSTERING CONCEPTS

Look for related concepts that flow from more general terms & ideas

Key concept 1 Health	Key concept 2 Kenya	Key concept 3 Family Planning
Diseases	Nairobi	Family Planning Methods
HIV AIDS	Republic of Kenya	Natural Family Planning
HIV AIDS Prevention	Eastern Africa	Family Planning Services

TURN CONCEPTS INTO SEARCH TERMS

Key concept 1 Health	Key concept 2 Kenya	Key concept 3 Family Planning
Diseases	Nairobi	Family Planning Methods
HIV AIDS	Republic of Kenya	Natural Family Planning
HIV AIDS Prevention	Eastern Africa	Family Planning Services

Search query: “HIV AIDS” Nairobi “Family Planning Services”

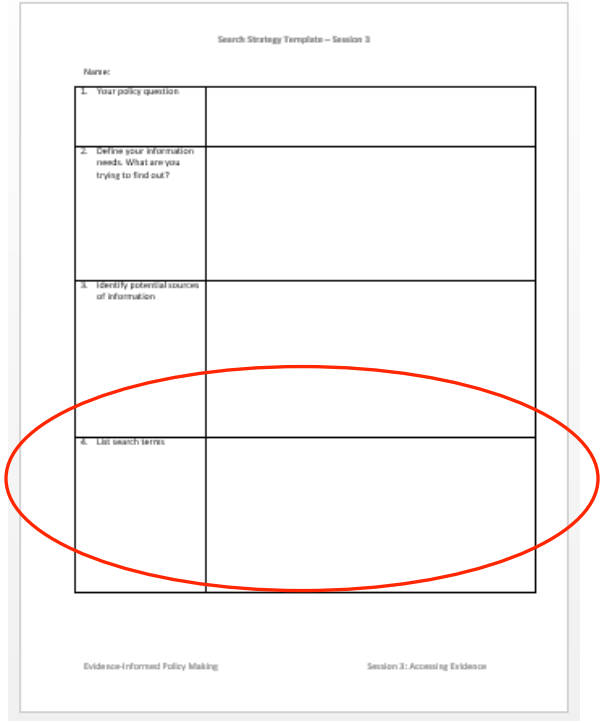
INDIVIDUAL ACTIVITY

CREATE SEARCH TERMS

Worksheet: Search Strategy Template.

Instructions: Identify and list your search terms

[15 minutes]



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Evidence-Informed Policy Making Session 3: Accessing Evidence

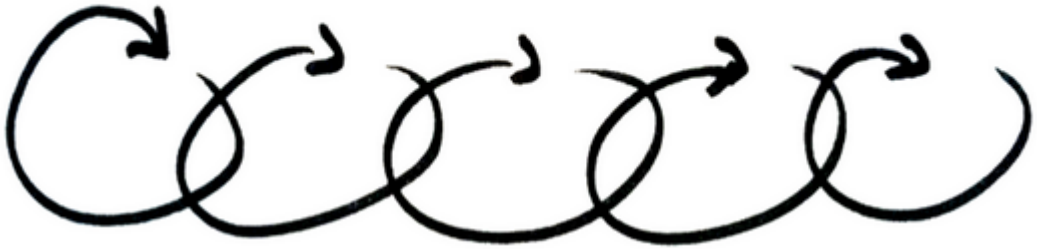
STEP 8

EVALUATE RESULTS

Look at what you're getting. If you get nothing helpful, there may be a couple reasons: there may be not much out there, your terms are wrong, or the relationships are not right. Go back and try again if you're not getting what you want.

SEARCHING FOR EVIDENCE IS AN ITERATIVE CYCLE…

- Reflect
- Review
- Revise



REVIEW & REVISE YOUR SEARCH

Hopefully you have found what you are looking for, or at least places to start from, but:

- Be prepared to review & revise your search scope & strategy
- Try new sources of information (familiarity can be too easy)
- Start again near the beginning of this process if you need to

STEP 9

RECORD YOUR SEARCH STRATEGY

Recording your strategy is a good practice even if you are not writing a manuscript or conducting a systematic review (where it would be a requirement).

Recording the basic fields of information in your strategy is not necessarily for reporting but to help you know what you have already done and what you still intend or need to do. This helps you and/or your collaborating colleagues to not repeat work and is particularly helpful if the search effort extends over many months or is done by more than one person.

STEP 9

RECORD YOUR SEARCH STRATEGY (CONT.)

These are the types of information from your search strategy to record:

- List search terms
- List all databases searched
- Copy & save search terms as they are used to search each database; this is called a search strategy
- Note the dates of the final search with the relevant results for each database AND the period searched
- Note any language or publication status restrictions
- List grey literature sources
- List individuals or organizations contacted
- List any journals and conference proceedings specifically hand-searched for the review
- List any other sources searched (e.g. reference lists, the Internet).

STEP 10

DOCUMENT YOUR REFERENCES

You can use an Excel spreadsheet or even a Word document to collect & organize your references.

Reference manager software makes this task much easier & enables you to add notes to references, cite your references & create bibliographies more easily.

There are many programs available – some free ones are Zotero, Mendeley, & basic versions of Endnote (Endnote Online).

BOOLEAN & MORE

BOOLEAN SEARCHING

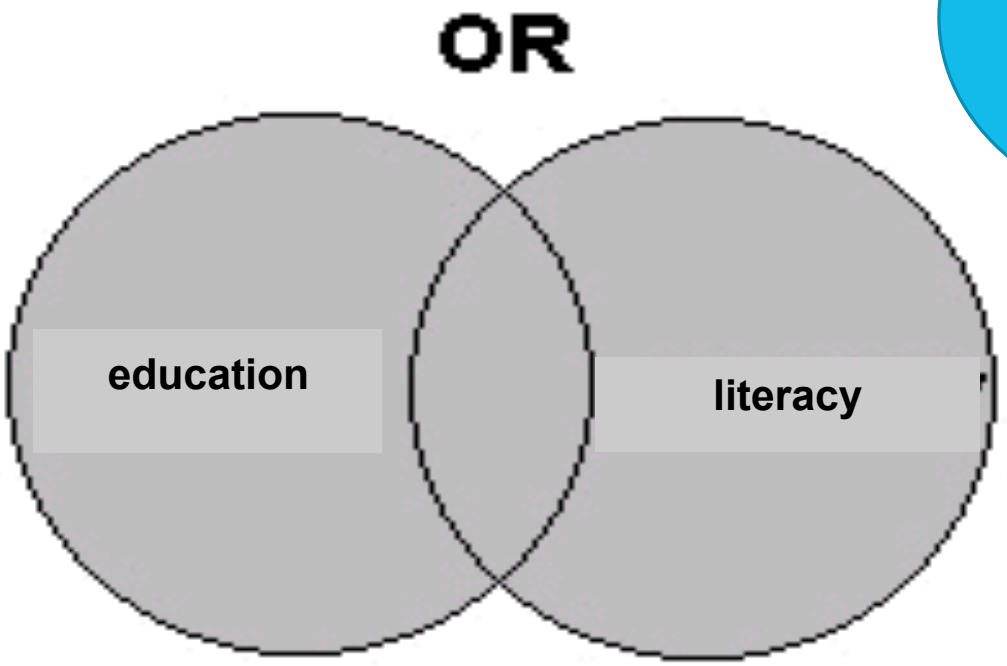
As search engines like Google are becoming more sophisticated, Boolean terms are becoming a thing of the past.

- Uses commands (operators) such as AND, OR, NOT
- Different search tools may use different symbols
  - +
  - –

Still, some repositories use them so its good to know about.

- Different search tools may use AND as a default setting (e.g. Google)
- Sometimes Boolean operators must be entered in capital letters (e.g. Synergy OR Interaction)

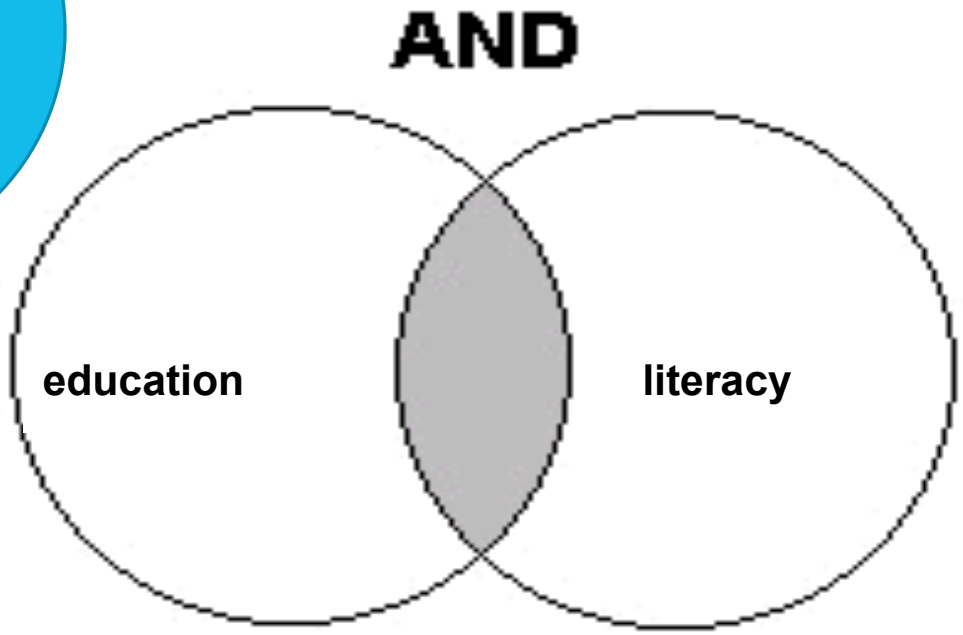
OR logic is most commonly used to search for synonymous terms or concepts.



Query: I would like information about education or literacy

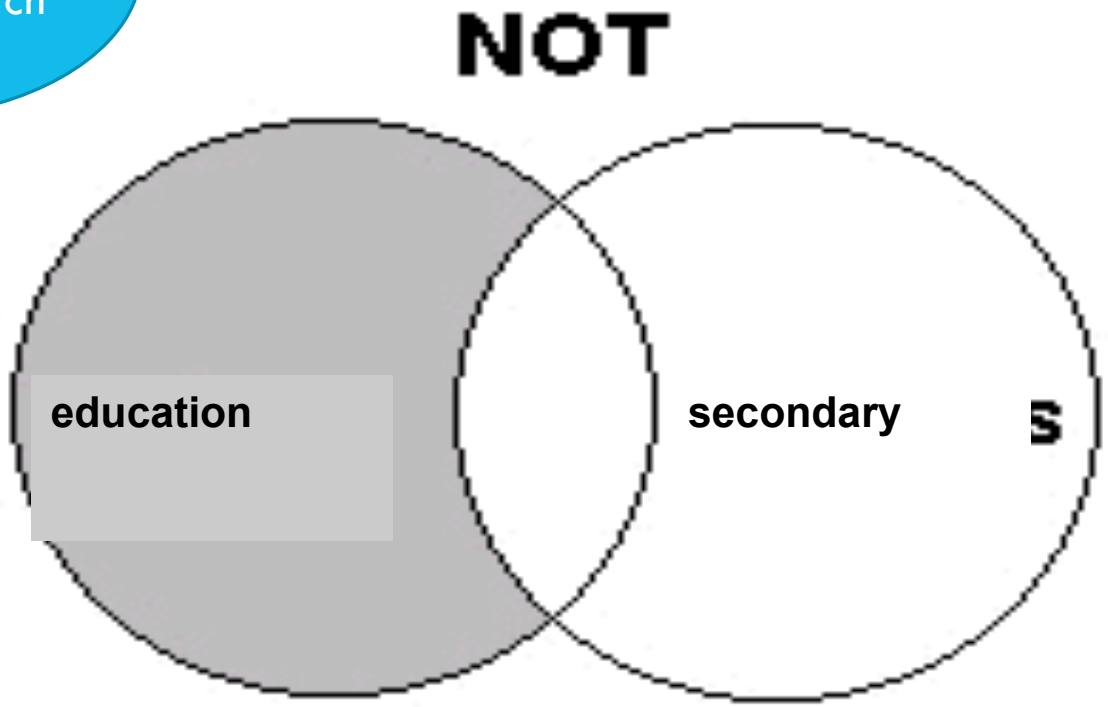
The more terms or concepts we combine in a search with AND logic, the fewer records we will retrieve.

we will not retrieve any records with only "education" or only "literacy"



Query: I'm interested in the relationship between education and literacy

NOT logic excludes records from your search results.



Query: I want to see information about education, but I want to avoid seeing anything about secondary

ADVANCED TIPS: PHRASE, TRUNCATION, WILDCARD

1. Using quotation marks allows you to search for an exact phrase, e.g. “information literacy”
2. Truncation: place a symbol at the end of the word so you search for variant endings of that word

E.g. litera$ would look for literature, literacy, literal

1. Wildcards: place a symbol within a word to find variations on it

E.g. analy*e would find analyse or analyze

DEMONSTRATION

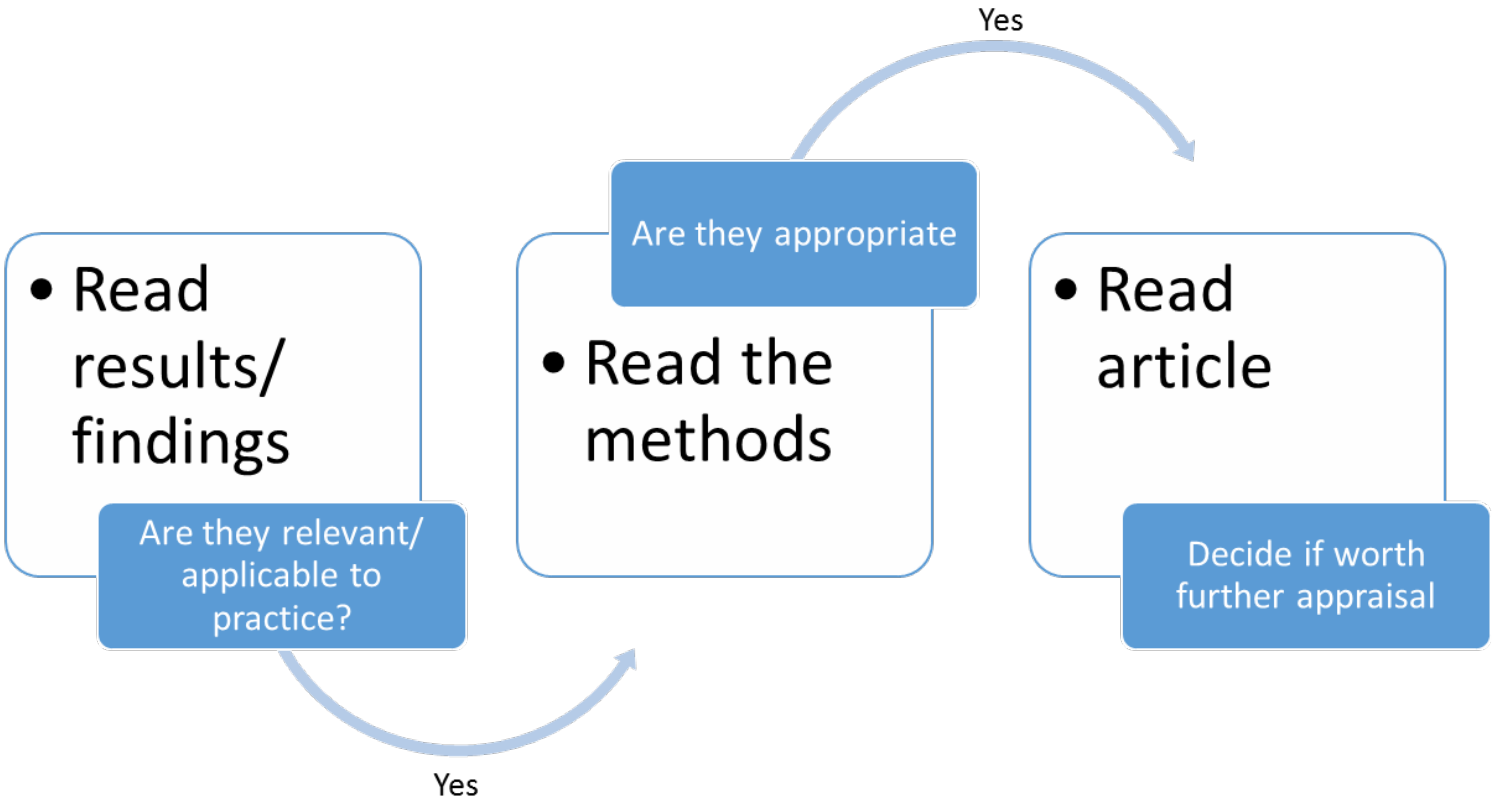
Source: Pixabay free graphics

TAKING A FIRST PASS - IS IT RELEVANT?

"The worst way to approach this task [reading a scientific article] is to treat it like the reading of a textbook—reading from title to literature cited, digesting every word along the way without any reflection or criticism. Rather, you should begin by skimming the article to identify its structure and features. As you read, look for the author's main points."

Purugganan and Hewitt, (2004) *How to Read a Scientific Article*

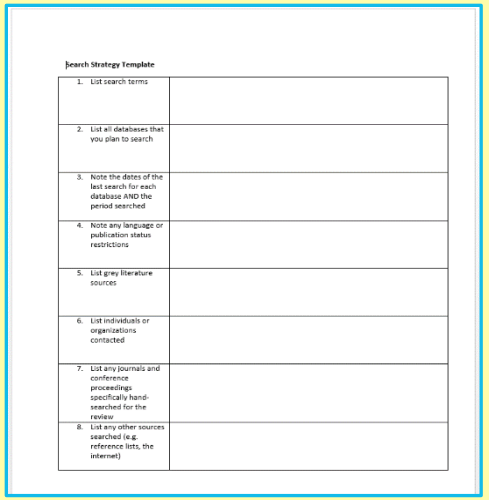
APPRAISAL SHORTCUT



PRACTICAL APPLICATION EXERCISE 2

1. Access internet
2. Use search terms identified
3. Search for evidence to address your policy questions
4. List references of the information/articles/resources
5. Prioritize them from most to least important

Worksheet: Sourcing evidence for answering your policy question



Search Strategy Template

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[1 hour 10 minutes]

ASSESSING SOURCE CREDIBILITY

https://upload.wikimedia.org/wikipedia/commons/d/dc/Circle-Thumb.png

https://upload.wikimedia.org/wikipedia/commons/2/27/Circle-Thumb-Down.png

ASSESSING QUALITY OF SOURCE

Reputation: The source is sometimes as important as the evidence

- With Cochrane, for example, you can have a certain amount confidence about the credibility of the evidence.

Journal Rankings: Ranking systems can provide an indicative proxy guide regarding the scrutiny with which a study has been subjected prior to publication

- The principal system is the 'Impact Factor' rating. Journals often publish their Impact Factor ranking on their website.

JOURNAL IMPACT FACTOR

It is the measure of how many times the average article has been cited in the last two years.

The higher the number the better.

See list in Participants Guide

But don't be oversold or exclusive on high ranking journals. Could be a new journal or people are not writing about it. Ranking may not include southern academic organizations or online journals

ASSESSING QUALITY OF SOURCES

When looking at formal electronic publications, quality issues are easier if you consider:

- Established publishers
- Established journals

But additional quality issues arise, particularly related to the appropriateness of information and the selection criteria

COLLECT & EVALUATE INFORMATION

- Evaluate to ensure it is relevant, accurate, of high enough quality, etc.

- Collect it via printing, pen & paper, flash-drive, email, saved searches, or online bookmarking tool (e.g. Diigo)

- Keep a complete record of the source for citing later

CONTENT CRITERIA FOR SOURCE

- Validity – is it reliable?
- Accuracy – is it accurate?
- Authority & reputation of the source
- Uniqueness – is it original?
- Completeness – is any information missing?
- Coverage – what depth does it go into?
- Timeliness – is it up-to-date?
- Affiliation – is it biased?
- Funder – is it state or privately funded?

Not all well-designed & robustly applied research is to be found in peer-reviewed journals and not all studies in peer-reviewed journals are of high quality.

For more see - *How to Note: Assessing the Strength of Evidence* e DfID's in the Participant's Guide.

MODULE 2 OBJECTIVES

At the end of this module participants will:

- Know tips for engaging with researchers for evidence
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MODULE 2 REFLECTION & EVALUATION

Source: https://pixabay.com/en/stones-stacked-balance-842731/