

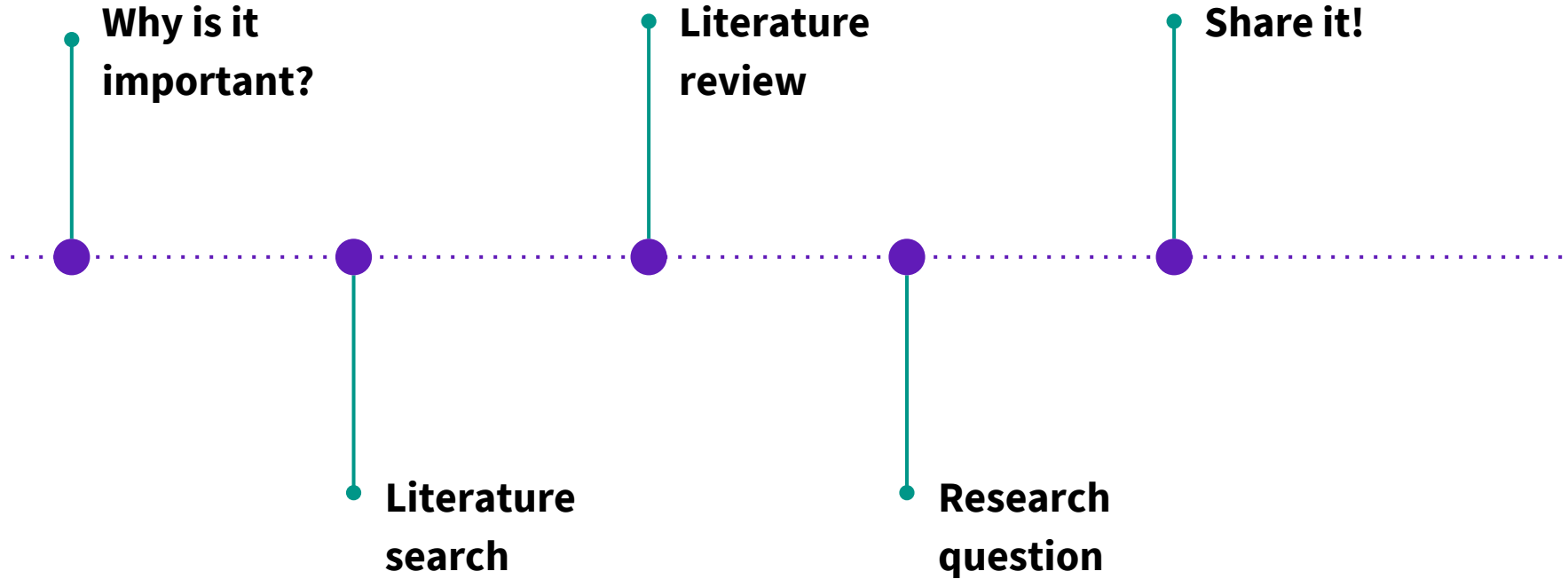
Identifying knowledge/ research Gap

(final
version)

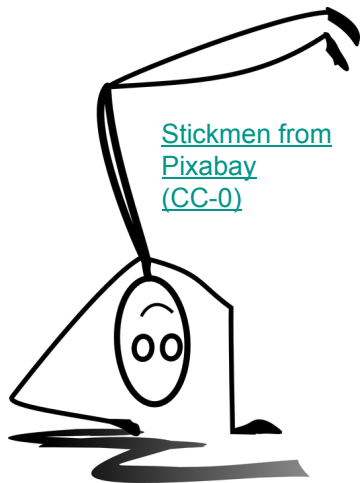
A bit about me



Outline



Meet Mr. Skinny Leg

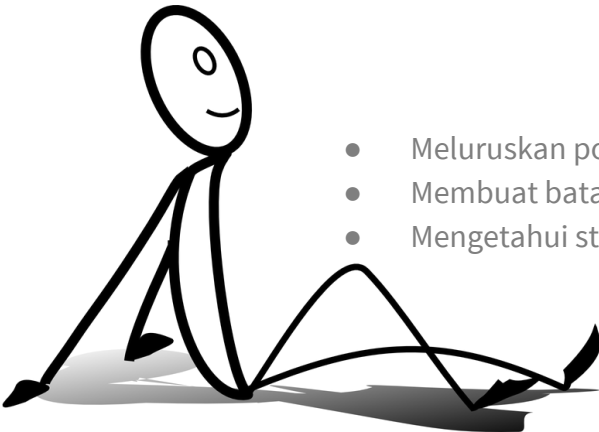


1. PhD student, early 30's, with no funding
2. Becoming PhD because:
 - a. Ridiculously in love with science and hoping that science loves me back
 - b. It's a chance to push my limit
 - c. I love Ross Geller from friends
3. I love to learn something new but I don't like rules especially if it holds back my creativity.
4. I love twitter, because I love to share stuff and I love to see others learning something from me.
5. And uh, I'm taken.

Why is it important?

> focus

- To align your perspective
- To make a boundary for your research
- To have an idea the status of your research



- Meluruskan pola pikir
- Membuat batasan
- Mengetahui status riset

Why is it important?

> Research cycle

What you being
told



vs

Reality

Mapping what I know

2015-05-13F

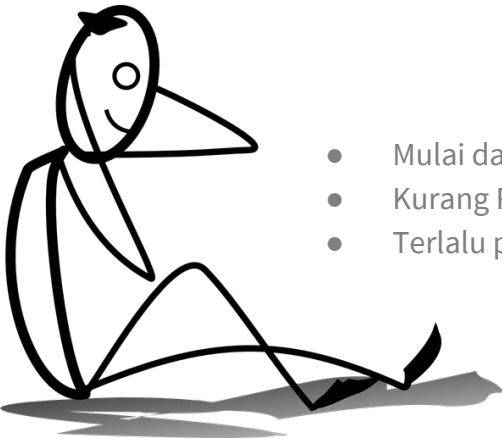
Why is it
important?
> Research cycle



Why is it important?

> common problems

- don't know where to start
- lack of self-confidence
- letting time answers you problem



- Mulai dari mana?
- Kurang PD
- Terlalu pasrah

Why is it important?

> proposed solution

- wake up!
- start from the EAST:
 - start **(E)**arly
 - start with your core **(A)**bility
 - start **(S)**imple
 - **(T)**iming is your ally

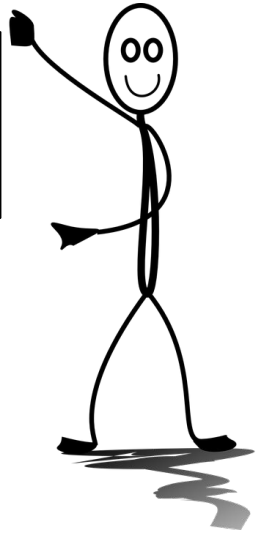


Why is it important?

> summary

Having a bad plan is still good. It means you're being prepared -- Irawan (2017) CC-0

Memiliki rencana yang buruk
masih lebih baik. Artinya
anda sudah bersiap.

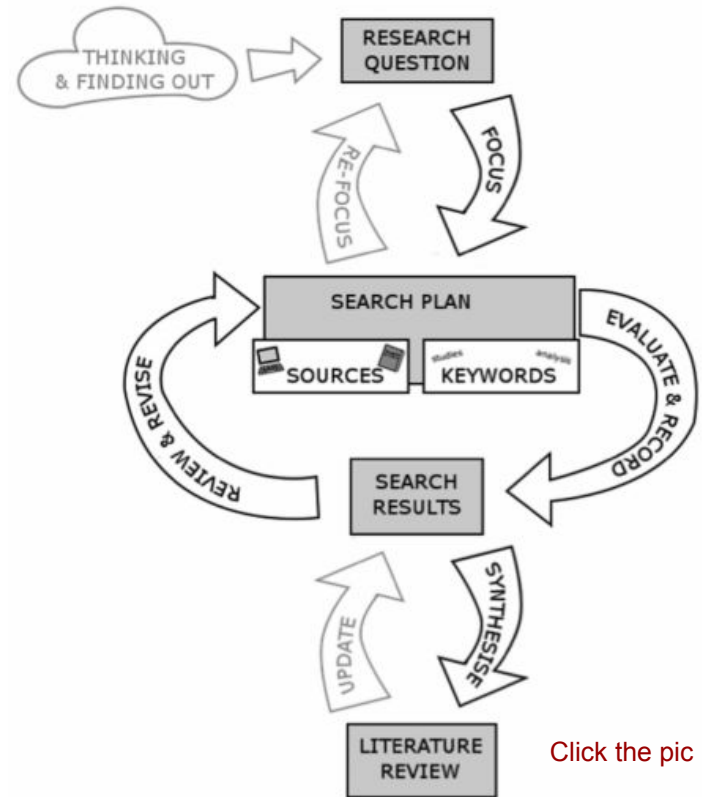


> brain storming!

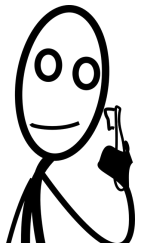


Literature search - review - research question

> how are they linked



Click the pic



Start with literature search

> the basics

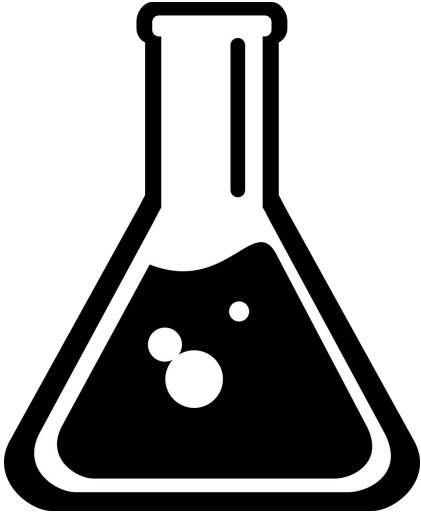
- play around with your keywords
- use:
 - multiple dbase (free and paid dbase)
 - [reference](#) manager
 - [google trend](#) to evaluate



- Bermain dengan kata kunci
- gunakan:
 - Beberapa dbase (gratis dan berbayar)
 - [reference](#) manager
 - [google trend](#)

Literature search

> the objectives



1 -- to provide scientific **basis**

Literature search

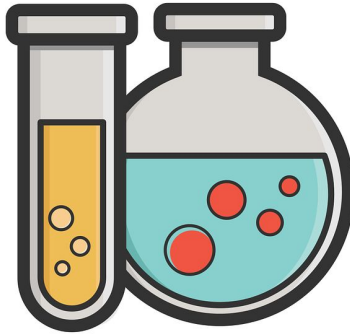
> the objectives



2 -- to **clarify** ideas

Literature search

> the objectives



3 -- to find 3rd party **data** and **methods**

Literature search

> the objectives



4 -- to identify existing
knowledge and issues

Literature search

> the objectives

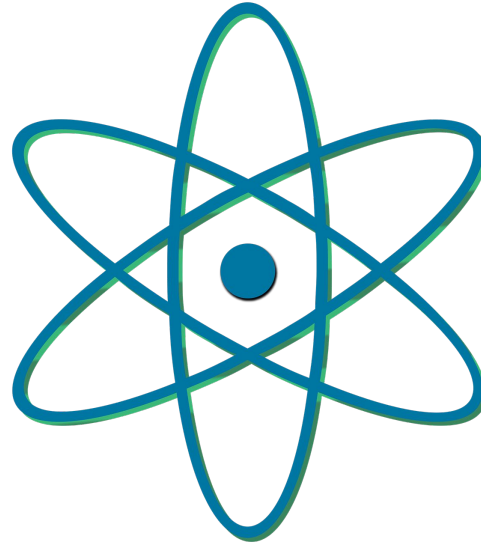


5 -- to **evaluate** and **re-evaluate** plan

Literature search

> what to do?

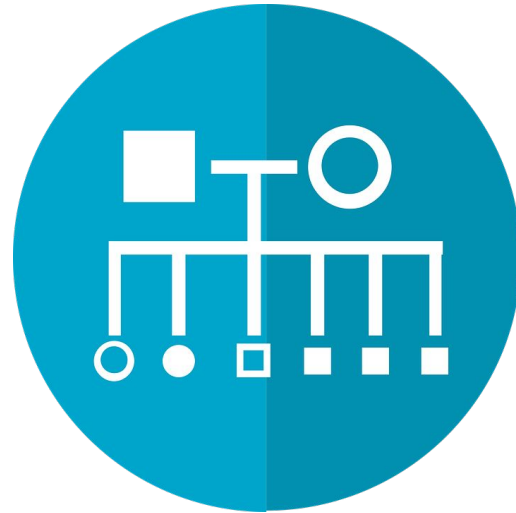
1 -- **comprehensive** search



Literature search

> what to do?

2 -- use **multiple** database



Literature search

> what to do?

3 -- take notes on **keyword** usage



Literature search

> what to do?

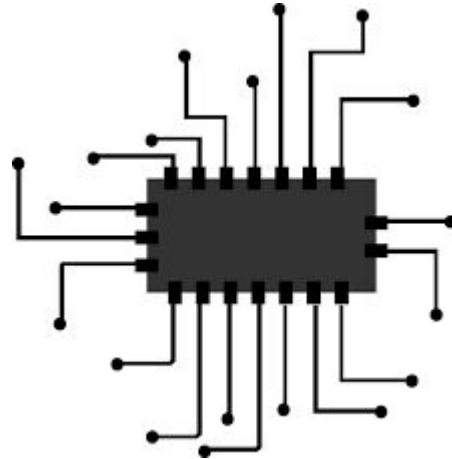
4 -- take **notes** on the
sum of search results



Literature search

> what to do?

5 -- set some preliminary
criteria

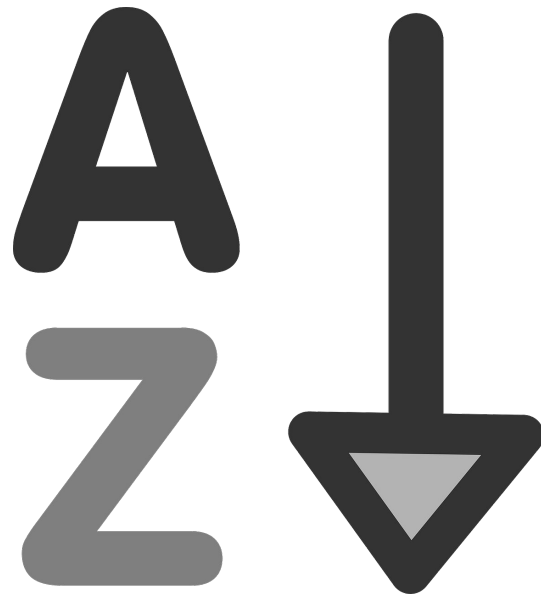


Literature search

> what to do?

6 -- **sort** search results

Eg: most cited, high altmetric score etc



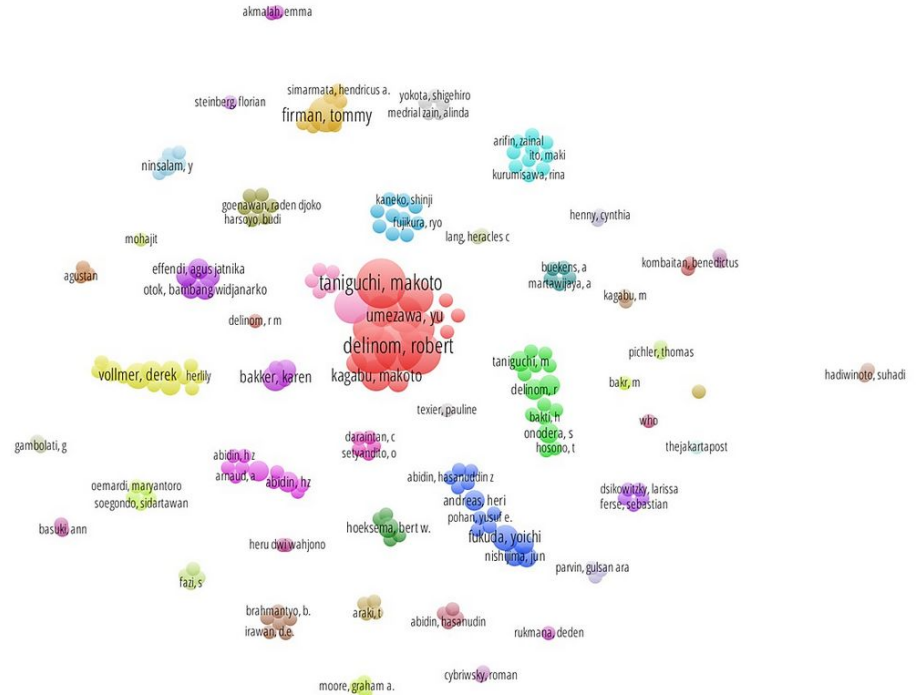
Literature search

> what to do?

7 -- visualise search results

(please refer to my article

<https://doi.org/10.3897/rio.2.e9841>)



Literature search

> what to do?

8 -- define **scoring** system



Literature search

> what to do?

9 -- **trim** down the list

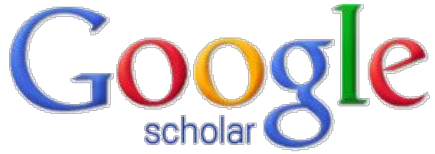
eg: peer-reviewed articles only, etc

But you might be amazed by seeing the later slides on [preprints](#). [What is preprint?](#)
[PeerJ](#).



Literature search

> the tools (database)



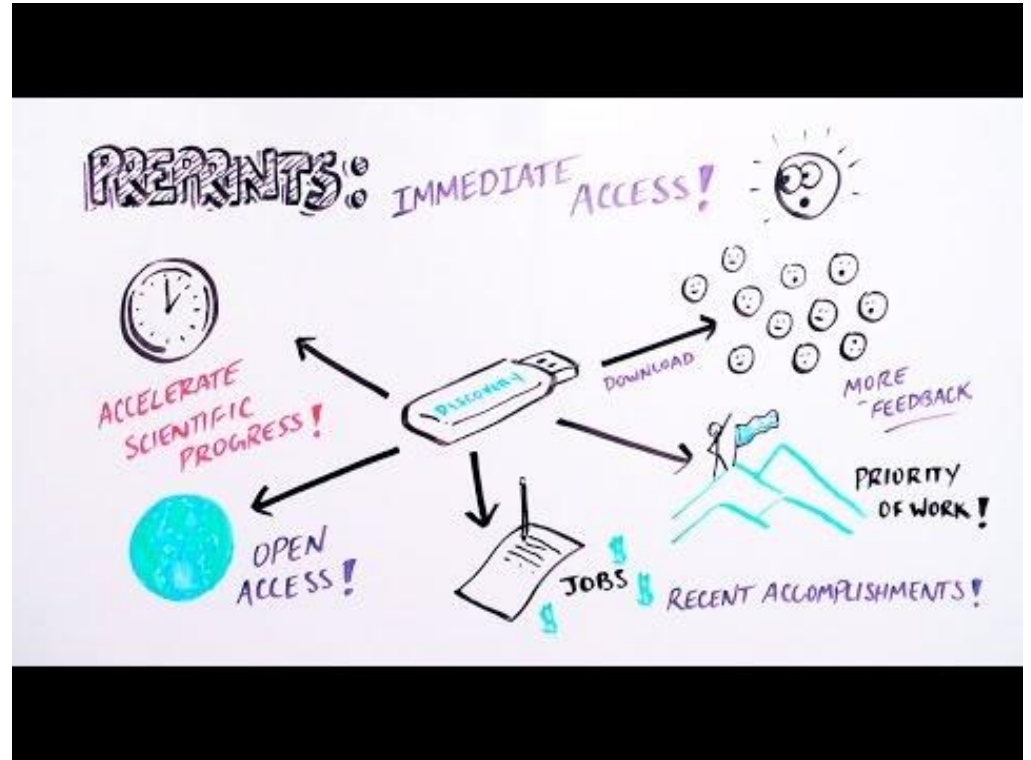
Literature search

> the tools (preprint server)



Literature search

> the tools (preprint server)



Literature search

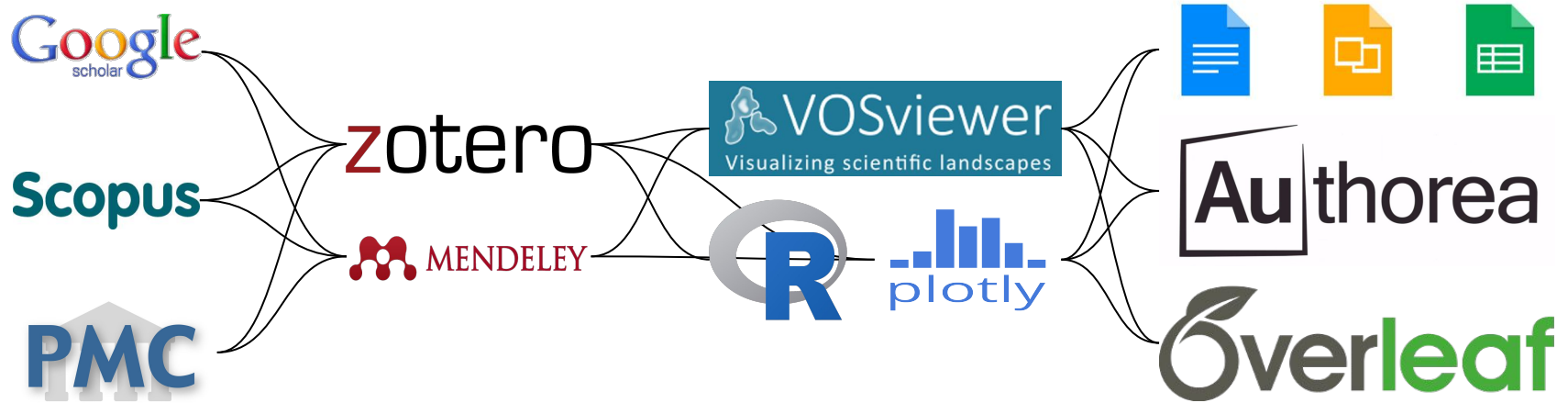
> the tools (preprint server)



Emerging trends in
academic publishing:
Preprint servers

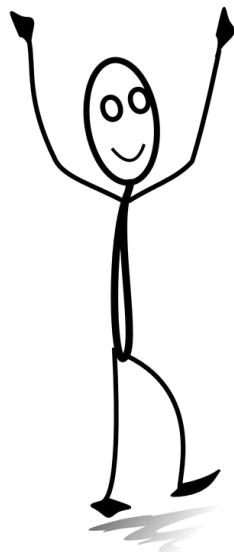
Literature search

> the tools



Literature search

> summary



To sum up:

- Use multiple dbase
- There's nothing like one set of keywords
- Take note of the search strategy

> brain storming!



Literature review

> selecting papers based on **scores**

Table 2. Critical appraisal process using Loney et al.[18]; Country order alphabetically, study order by year of publication

Authors and year of publication	<i>Random sample or whole population</i>	<i>Unbiased sampling frame</i>	<i>Adequate sample size</i>	<i>Measures were the standards</i>	<i>Outcome measured in an unbiased fashion</i>	<i>Adequate response rate, <u>refusers</u> described</i>	<i>Confidence intervals, subgroup analysis</i>	<i>Study subjects described</i>	Score
---------------------------------	--	--------------------------------	-----------------------------	------------------------------------	--	--	--	---------------------------------	-------

Rachmi et al. (2017) Overweight and obesity in Indonesia: prevalence factors - a literature review. Public Health. 147. Pp 20-29. <https://doi.org/10.1016/j.puhe.2017.02.002>

Literature review

> selecting papers based on criteria

Table 3 – Summary of results from included studies; order by year of publication and alphabetically within the same year.						
No	Authors, year of publication	Year of study	Level of study	Number of participants	Criteria used	Prevalence of overweight/obesity [O/O] or obesity
1	Soekirman et al., 2002 ¹³	2001	Regional	1367 children (8–10 years)	WHO 1995	[O/O]—boys: 17.8%; girls: 15.3%
2	Julia et al., 2004 ²⁶	1999	Regional	1738 boys (6.0–8.9 years) and 1272 girls (6.0–7.9 years)	IOTF 2000	[O/O]: 3.5%
3	Doak et al., 2005 ⁴	1993	National	6461 households (children and adolescents 2–18 years; adults)	WHO–NCHS 1995 IOTF 2000 and WHO 2000	[O/O]: 2.3% [O/O]—children and adolescents: 5.1%; adults: 14.6%
4	Prihantini and Jahari, 2007 ¹⁵	2005	National	7195 children and adolescents (6–18 years)	CDC 2000	[O/O]: 6.0%
5	Collins et al., 2008 ²⁷	2002	Regional	1758 adolescents (12–15 years)	CDC 2000	Obesity: 8.0%
6	Azhari et al., 2009 ²⁴	2007	Regional	3108 adolescents (16–18 years)	CDC 2000	Obesity: 2.7%; boys: 2.2%; girls: 3.2%
7	Razzaque et al., 2009 ²⁵	2005	Regional	2000 adults (25–64 years)	WHO 2000	[O/O] – male: 10.4%; female: 27.9%
8	Susilowati, 2011 ¹⁷	2010	National	44,604 adolescents (10–19 years)	WHO 2004	[O/O]: 9.8%; boys: 8.7%; girls: 10.8%
9	Roemling and Qaim, 2012 ²³	1993, 2000, 2007	National	47,743 adults (20–75 years)	WHO 2004 and Gurrici Indonesia-specific 1998	[O/O] – 1993 male: 20.8%; female: 32.0% [O/O] – 2000 male: 24.6%; female: 39.6% [O/O] – 2007 male: 31.2%; female: 48.8%

<https://doi.org/10.1016/j.puhe.2017.02.002>

Literature review

> selecting papers based on criteria

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<https://doi.org/10.1016/j.puhe.2017.02.002>

Literature review

> keywords

We conducted a literature search in four electronic databases for papers published in English language: Medline via OvidSP, Scopus, Global Health via OvidSP and Web of Science, from earliest until March 2016. The search in Medline used the following key words/MeSH terms: 1) overweight and obesity (overweight OR obese* OR weight OR body weight OR fat), 2) prevalence (prevalence OR number* OR case*, incidence OR survey), 3) risk factor (risk factor* OR cause OR aetiology), 4) adults (adult* OR mother OR father OR parent* OR caretaker OR elder*), 5) children and adolescents (child* OR adolescent* OR school-age), 6) Indonesia (Indonesia OR South East Asia OR

<https://doi.org/10.1016/j.puhe.2017.02.002>

Literature review

> keywords

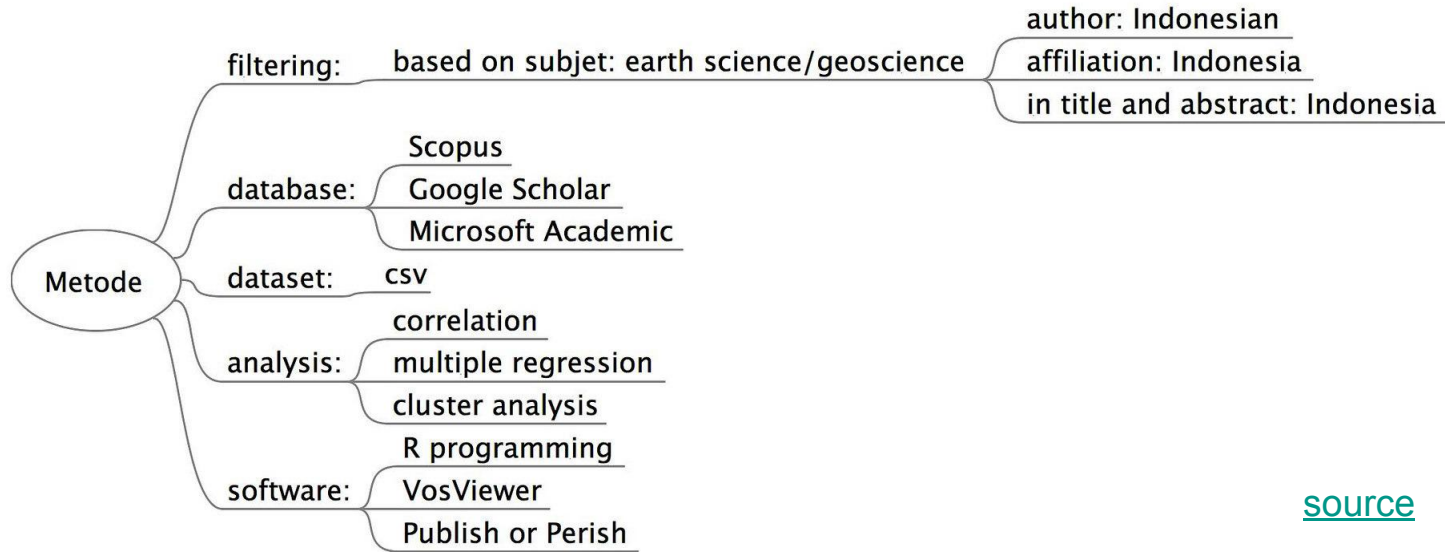
Asia OR LMIC* OR developing country*). We combined the results from 1) to 6) with AND. Searches in other databases used similar search strategies and key words.

We also identified papers written in the Indonesian language through searches of: 1) the National Institute of Health Research and Development website (<http://ejournal.litbang.depkes.go.id/>); 2) Indonesian journals; and 3) Indonesian Ministry of Health websites (www.depkes.go.id). We contacted several Indonesian public health researchers and practitioners, and Ministry of Health staff, seeking full publications of conference abstracts. The complete list of sources is available in [Supplementary Table 1](#).

<https://doi.org/10.1016/j.puhe.2017.02.002>

Literature review

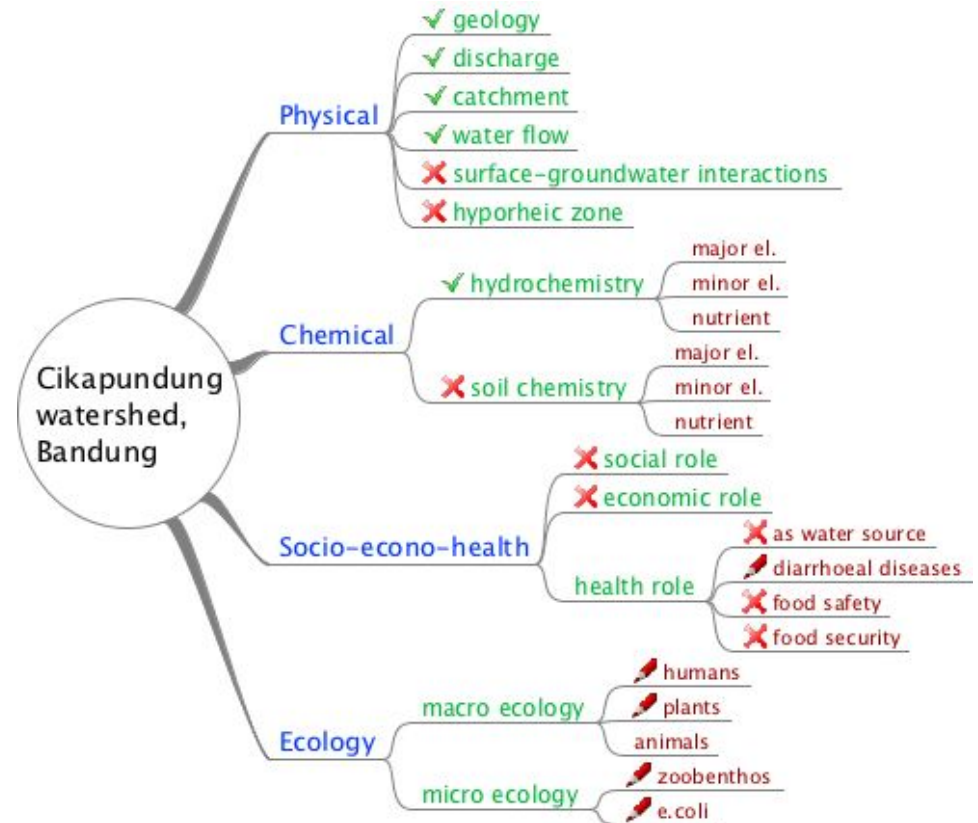
> mindmapping



[source](#)

Literature review

> mindmapping



source

Literature review

> mindmapping

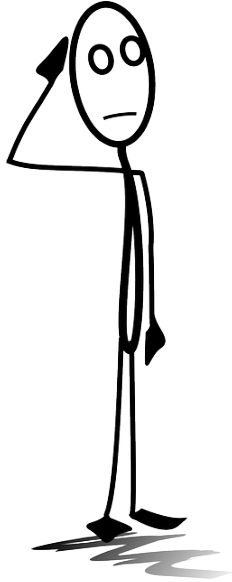
- Useful guidelines:
 - Literature search form [[PDF](#) / [DOC](#)]
 - [Literature review](#)

Then formulate research question

> good research question

is it:

- interesting?

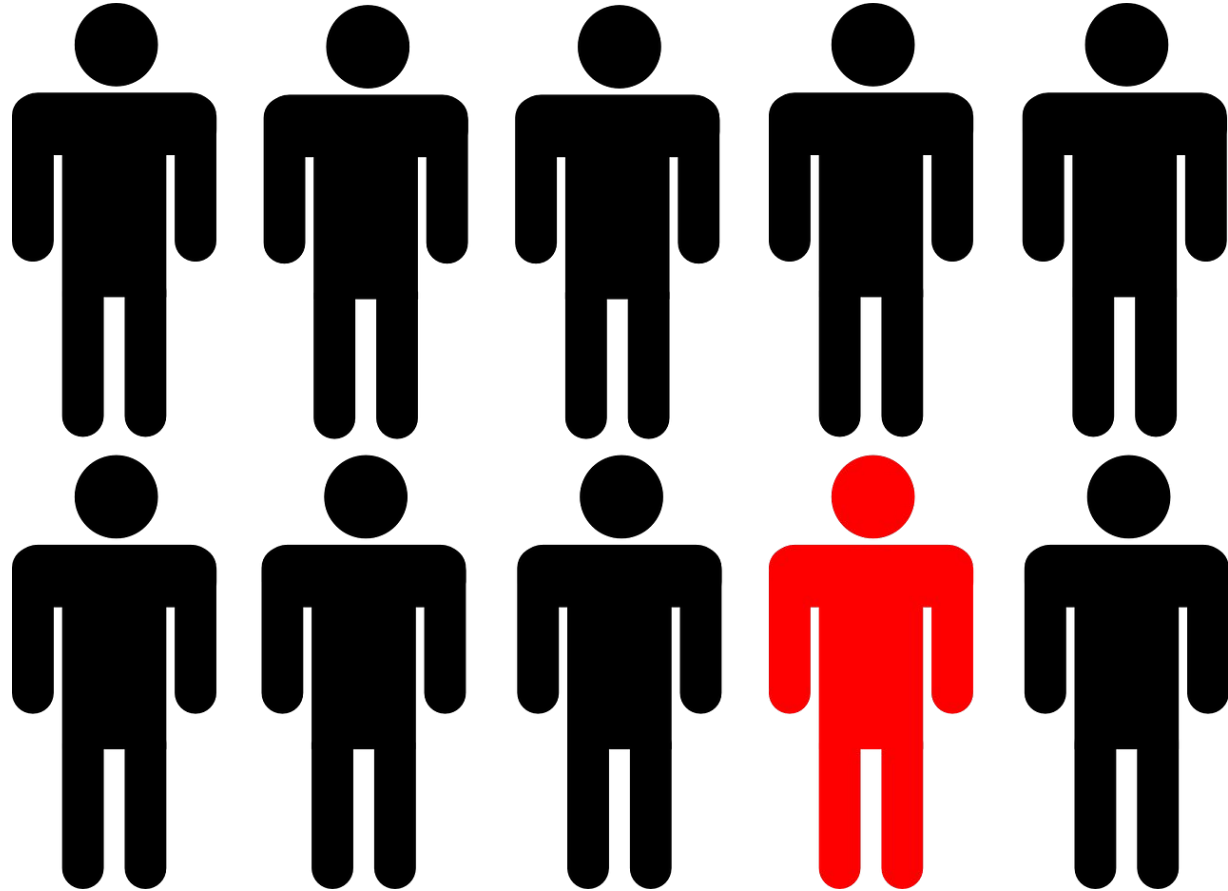


Then formulate research question

> good research
question

is it:

- a new issue? or a
contribution to
previous research?





**Then formulate
research question**
> good research question

is it:

- researchable and measurable?



Then formulate research question

> good research question

is it:

- feasible? (given time frame, resources, skills, etc)

Then formulate research question

> good research question

is it:

- too broad or narrow?



<p>Too narrow: What is the childhood obesity rate in Pheonix, AZ?</p> <p>This is too narrow because it can be answered with a simple statistic. Questions that can be answered with a "yes" or a "no" should also typically be avoided.</p>	<p>Less narrow: How does the education level of the parents impact childhood obesity rates in Pheonix, AZ?</p> <p>This question demonstrates the correct amount of specificity and the results would provide the opportunity for an argument to be formed.</p>
<p>Unfocused and too broad: What are the effects of childhood obesity in the United States?</p> <p>This question is so broad that research methodology would be very difficult and the question is too broad to be discussed in a typical research paper.</p>	<p>More focused: How does childhood obesity correlate with academic performance in elementary school children?</p> <p>This question has a very clear focus for which data can be collected, analyzed, and discussed.</p>
<p>Too objective: How much time do young children spend doing physical activity per day?</p> <p>This question may allow the researcher to collect data but does not lend itself to collecting data that can be used to create a valid argument because the data is just factual information.</p>	<p>More Subjective: What is the relationship between physical activity levels and childhood obesity?</p> <p>This is a more subjective question that may lead to the formation of an argument based on the results and analysis of the data.</p>
<p>Too simple: How are school systems addressing childhood obesity?</p> <p>This information can be obtained without the need to collect unique data. The question could be answered with a simple online search and does not provide an opportunity for analysis.</p>	<p>More Complex: What are the effects of intervention programs in the elementary schools on the rate of childhood obesity among 3rd - 6th grade students?</p> <p>This question is more complex and requires both investigation and evaluation which will lead the research to form an argument that may be discussed.</p>

[source](#)

Box 1

FINER criteria for a good research question

F Feasible

- Adequate number of subjects
- Adequate technical expertise
- Affordable in time and money
- Manageable in scope

I Interesting

- Getting the answer intrigues investigator, peers and community

N Novel

- Confirms, refutes or extends previous findings

E Ethical

- Amenable to a study that institutional review board will approve

R Relevant

- To scientific knowledge
- To clinical and health policy
- To future research

Adapted with permission from Wolters Kluwer Health.²

[source](#)

Orisinalitas dalam riset

> good research question

Berikut ini beberapa hal yang perlu diperhatikan dalam [menguji orisinalitas dalam riset](#).



- More cost-effective.
- Sharing accelerates progress and innovation.

Efficiency

- Constant feedback loops.
- "No need to reinvent the wheel!"
- Cross-pollination.

What do YOU think?

Knowledge rights.

"It's the right thing to do"

Values

- transparency
- sharing
- community
- freedom
- Connect with like-minded people.

FUN!
Join exciting projects.
"I just love it!"

Can't afford the pay-wall.
necessity

"I need this feature."

- No relevant materials accessible \Rightarrow creativity.

Why do people participate in open culture

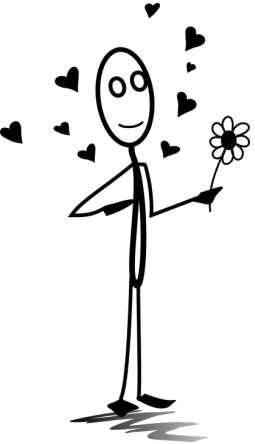
WhyOpen

[just coz']

* Empowerment

"I'm free to express my creativity"

- Learn new skills.
- Build self-confidence.



Share it as you go!

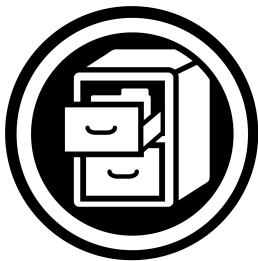
> why bother?



visibility



scientific
profile



self archiving



contribution



collaboration



comments
and feedback

Share it!

> what to share?



Publication



Poster



Presentation



Dataset



Image



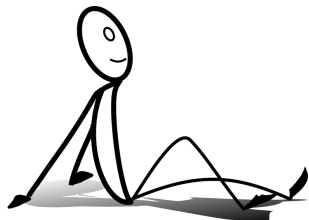
Video/Audio



Software



Lesson

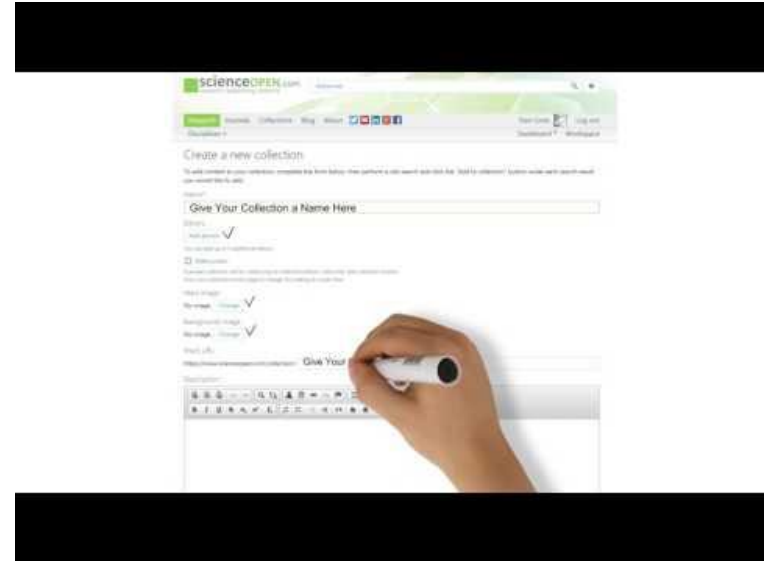


Share it!

> share your paper collection



[my example in](#)
[multivariate](#)
[analysis](#)

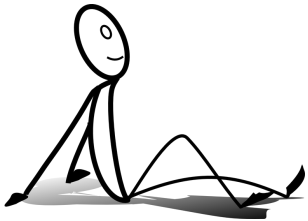


Share it!

> share your paper collection

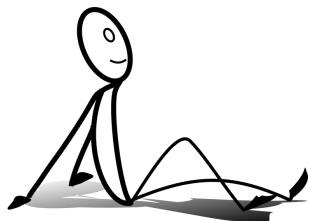


[my example in
hydrology](#)

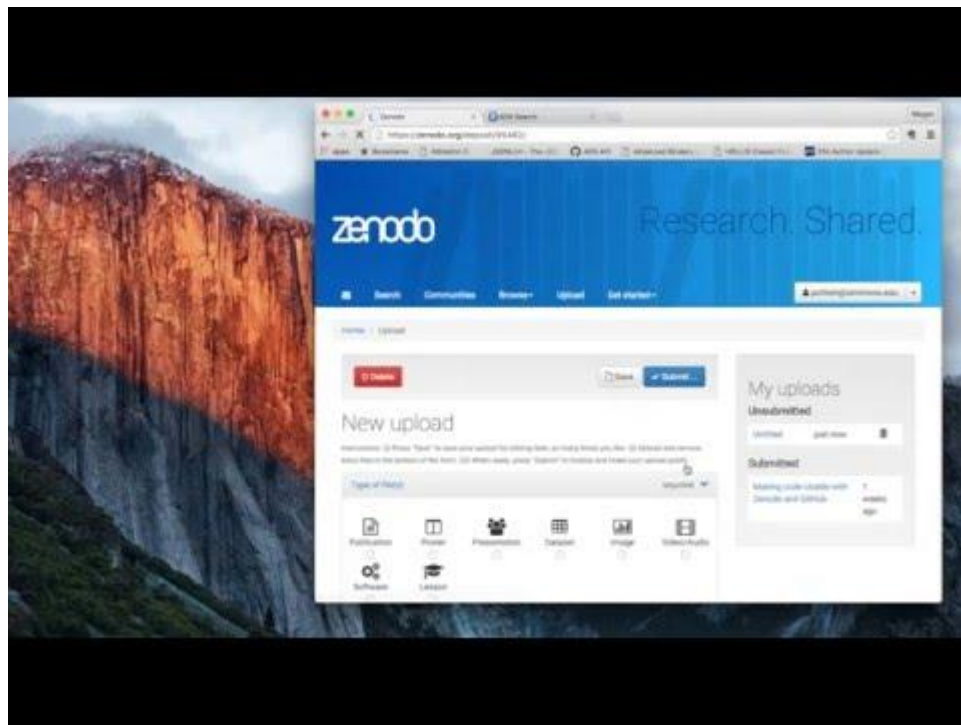


Share it!

> share your paper collection



[my example](#)



Funding

show
me
the
money!

[source](#)



Funding

show
me
the
money!

- important but not everything
- you can start a research based on creativity
- but you may also look for funding elsewhere



Funding

show
me
the
money!



- visit related website in your university
[\(example\)](#)
- national level funder [Kemristekdikti](#), [LPDP](#)
- international level funder [Newton fund](#)

Share it!

> preprint, post print



- [INARxiv](#)
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Thank you.

Inviting questions and comments

