

BMMB7009
Critical Literature
Review for
doctoral students

Week 8-9
Identification of
Research Gap :
Gap Analysis (I)



Agenda

I. Recap

2. Types of Gaps

- Seven gaps (Mile. 2017)
- Four gaps (Al-Saraf & Rautenbach, 2022)

3. Gap Analysis

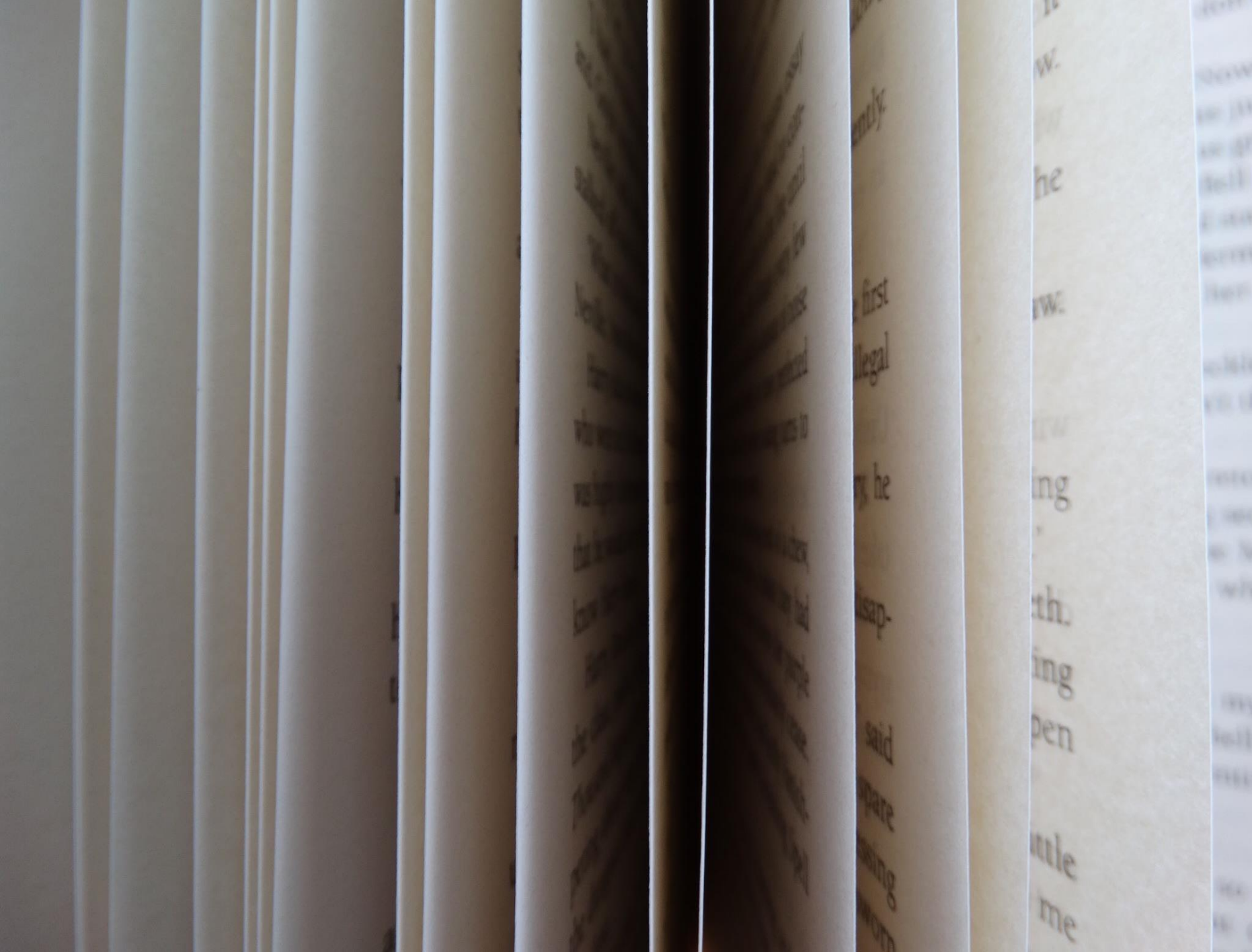
- Citation Analysis
- Content Analysis
- Meta-Analysis (Refer to the previous ppt file for details)
- Systematic Literature Review (Refer to the previous ppt file for details)
- Future Research and limitation

Source : Cited in Azeez & Elegunde 2022; Miles 2017

Please note

- This presentation will introduce you to some aspects of research methods – but it is NOT intended to replace key reading, **such as** Bryman, Crotty, Creswell, Maxwell, Denscombe, Denzin, Guba and Lincoln, Easterby-Smith et al, Collis and Hussey and Cohen.
- You must read key texts and beyond at doctoral level that cover the method and for this you may have to go beyond your modules reading list.
- Again some slides will not be focused on and you are expected at this doctoral level to be motivated, engaged and understand the areas you need to explore.



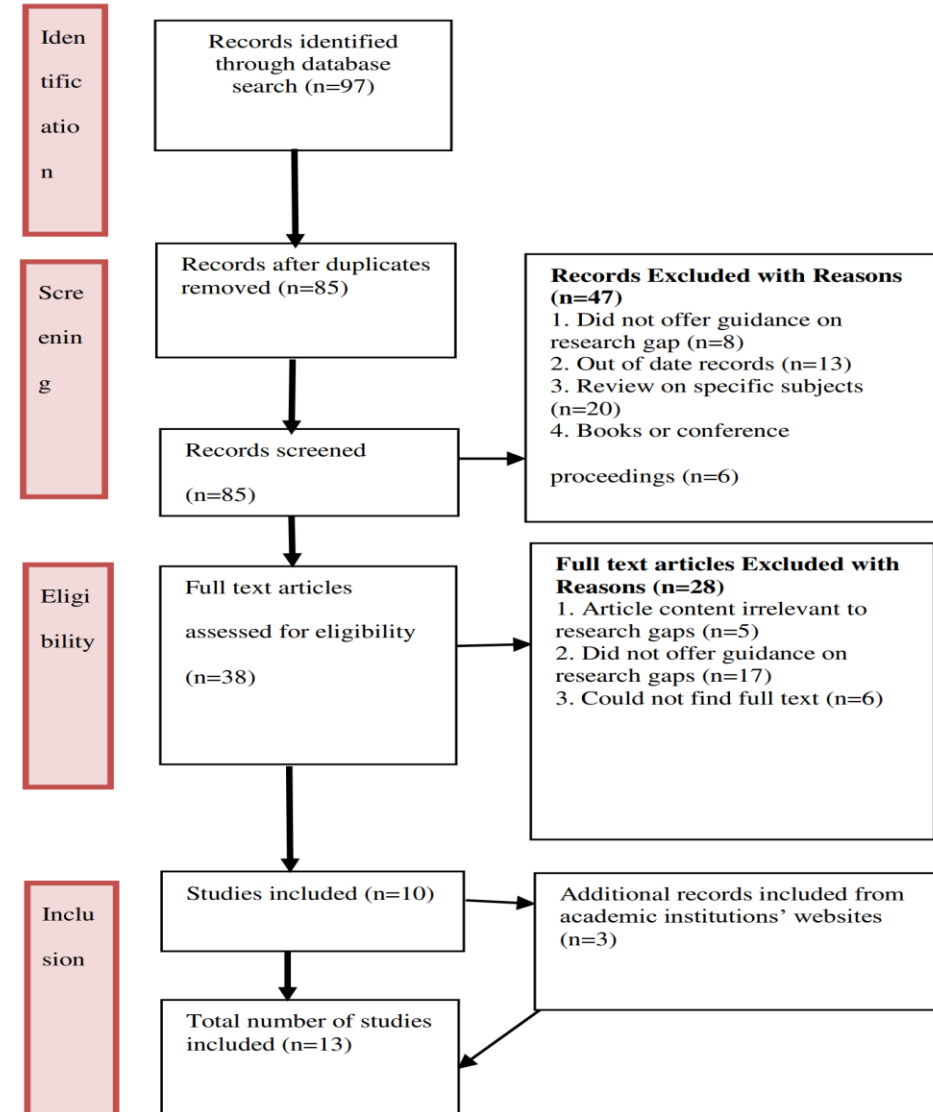


Types of gap (I)

Identification of research gap

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Table 1: PRISMA flow diagram for inclusion and exclusion of articles for the systematic review



The Concept of Research Gap

Identification of research gap through Literature Review

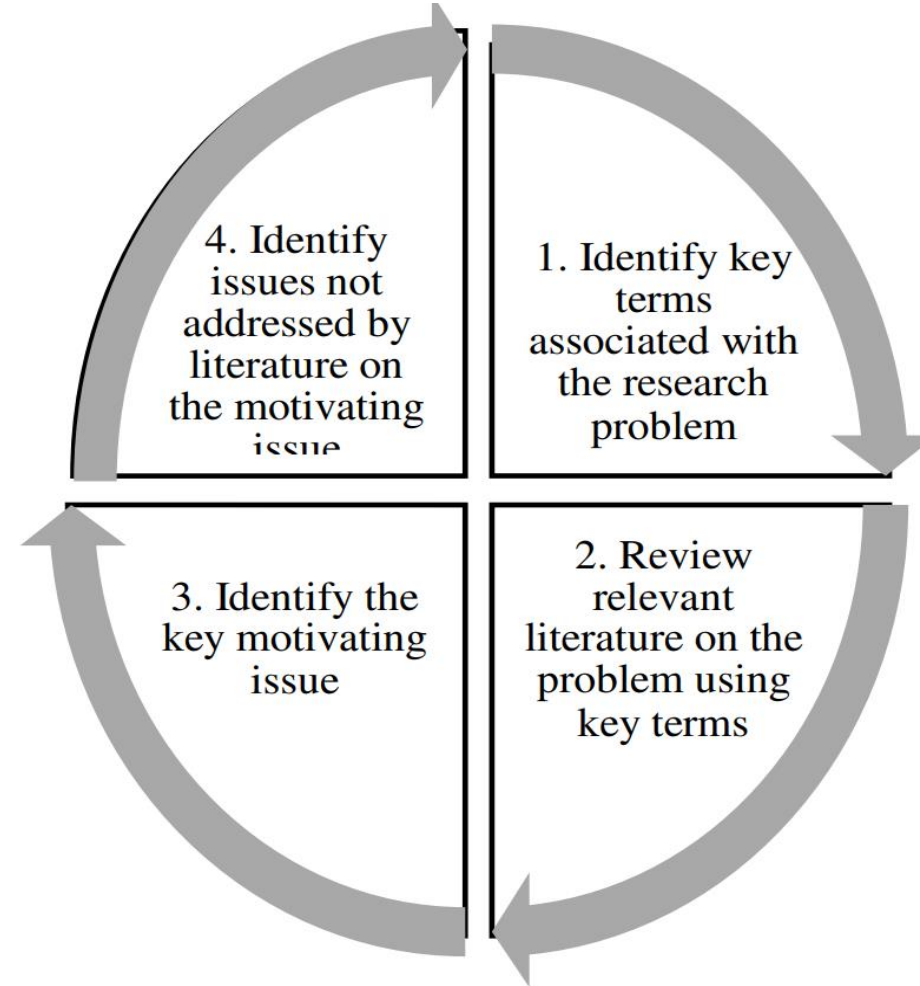


Figure 1: Steps to guide research gap identification

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Gap Identification and Literature Review

- Also research gap is when there are little or no information available and/or there is a high level of uncertainty about the accuracy of the existing estimate (Rudan et al., 2015), where additional research is needed from policy-makers perspective to address the gap in the available primary research (Scott et al., 2008).

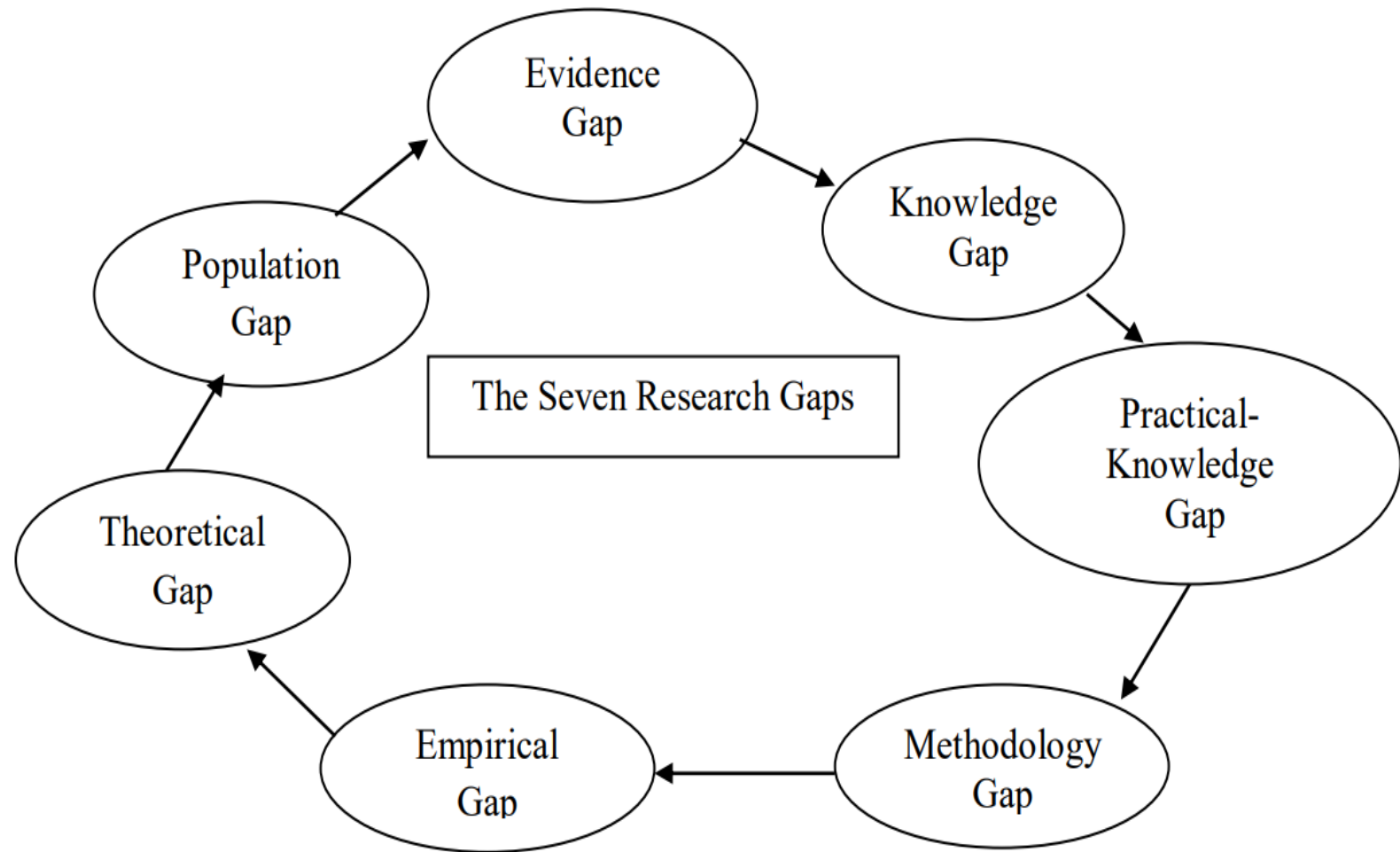
Source : Cited in Azeez & Elegunde 2022; Miles 2017

Gap Identification and Literature Review

- Research gaps are defined as gaps in sets of information (Mueller-Bloch & Kranz, 2015).
- Research gaps are evidence missing from a body of research on a particular topic that could otherwise potentially answer the question of decision makers. Scott, Carmen, Christa and Jacques (2008)

Source : Cited in Azeez & Elegunde 2022; Miles 2017

Identification of research gap through Literature Review – Types of Research Gaps



Source : Cited in Azeez & Elegunde 2022; Miles 2017

[Different types of research gap - Google Search](#)

Identification of research gap through Literature Review

1. Evidence Gap

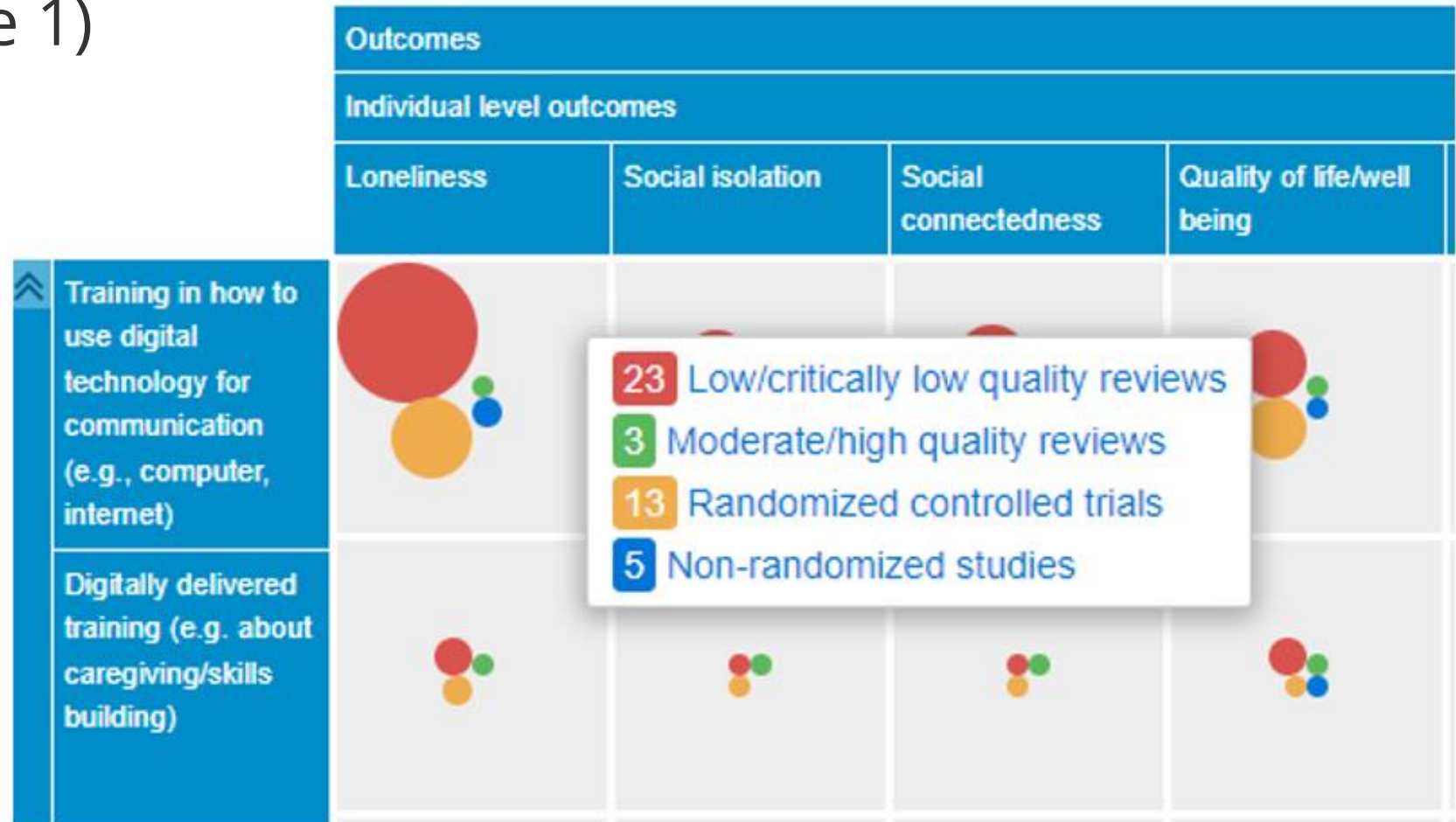
- An evidence gap occurs with a provocative exception if a new study finding contradicts widely accepted conclusion.
- The evidence gap involves divergence in findings of the prior research.
- This type of gap occurs when conclusions from the result of a study are accepted in its own right but is contradictory when viewed from a more abstract point of view, that is it is contradicting when compared to the result of similar researches. (Mueller-Bloch & Kranz, 2014 cited in Miles, 2017).

Source : Cited in Azeez & Elegunde 2022; Miles 2017

<http://www.ijisrt.com/>

1. Evidence gap

Example - EGM from the Campbell Collaboration on the **topic** 'Digital interventions for reducing social isolation and loneliness in the elderly' (Figure 1)



1. Evidence gap

Example

- The **interventions** (shown in the rows) consist of
 - training in how to use technology,
 - digitally delivered training or digitally delivered learning,
- The outcomes evaluated (shown in the columns) include: loneliness, anxiety, depression and self-esteem, among others.
- From this EGM, we can observe that there is no evidence available on the adverse effects of delivering training in a digital manner, and none for digitally delivered learning either.

1. Evidence gap

- Example
- As mentioned in the introduction, this does not mean that digitally delivered learning does not reduce social isolation in the elderly, but that **reviews or studies evaluating this type of intervention were not found: there is a gap in evidence.**

- [What are evidence gap maps and why are they important? - Students 4 Best Evidence](#)

- Source : Cited in Azeez & Elegunde 2022; Miles 2017

2. Knowledge gap

- Knowledge gap: Knowledge might not exist in the actual field on theories and literature (Miles, 2017; Müller-Bloch & Kranz, 2015)
- Is a common form of research gap. There are two situations in which a knowledge gap or knowledge void may occur; first, there may not be existing knowledge in the particular field of study regarding theories and literatures from related research domain; second, a possibility that the result of the study is different from the expected outcome (Mueller-Bloch & Kranz, 2014 cited in Miles, 2017).

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3. Practical - Knowledge gap

- Practical-knowledge gap refers to discrepancies that can bring about new research. A practical-knowledge (action-knowledge) conflict arises when the actual behaviour of professionals differs from their advocated behaviour (Mueller-Bloch & Kranz, 2014 cited in Miles, 2017).

4. Methodological gap

- A variation in research methodology methods required to generate new insights or avoid distortions in findings (Miles, 2017; Müller-Bloch & Kranz, 2015)
- A methodological gap is the gap refers to the conflict that arises in research as a result of the influence of methodology on a result. This gap seek to address the conflicts which arise as a result of the research methods in initial studies and offers a new line of research that is different from the previous research methods(Mueller-Bloch &Kranz, 2014 cited in Miles, 2017).

[Gap identification Understanding and spotting research gaps.pdf](#)

5. Theoretical/ Conceptual gap

- Application of theory to research is lacking (Miles, 2017; Müller-Bloch & Kranz, 2015)
- Population gap: Research on a population is inadequately represented (Robinson et al., 2011)
- Conceptual gap: Difference in theory and conceptual views (Jacquet & van der Does, 2020) Theory Application void: Theory must be applied to research to generate new insights (Miles, 2017; Müller-Bloch & Kranz, 2015)

5. Theoretical/ Conceptual gap

- The theoretical gap deals with the gap in theory in previous research. Theoretical gaps are a common occurrence in examining prior research on a phenomenon (Mueller-Bloch & Kranz, 2014 cited in Miles, 2017).
- Conceptual gap: Difference in theory and conceptual views (Jacquet & van der Does, 2020) Theory Application void: Theory must be applied to research to generate new insights (Miles, 2017; Müller-Bloch & Kranz, 2015)

6. Empirical gap

- An empirical gap is the type of research gap that has to do with gaps in the previous researches. This type of research gap deals with the research findings or propositions which requires evaluation or empirical verification (Mueller-Bloch &Kranz, 2014 cited in Miles, 2017).

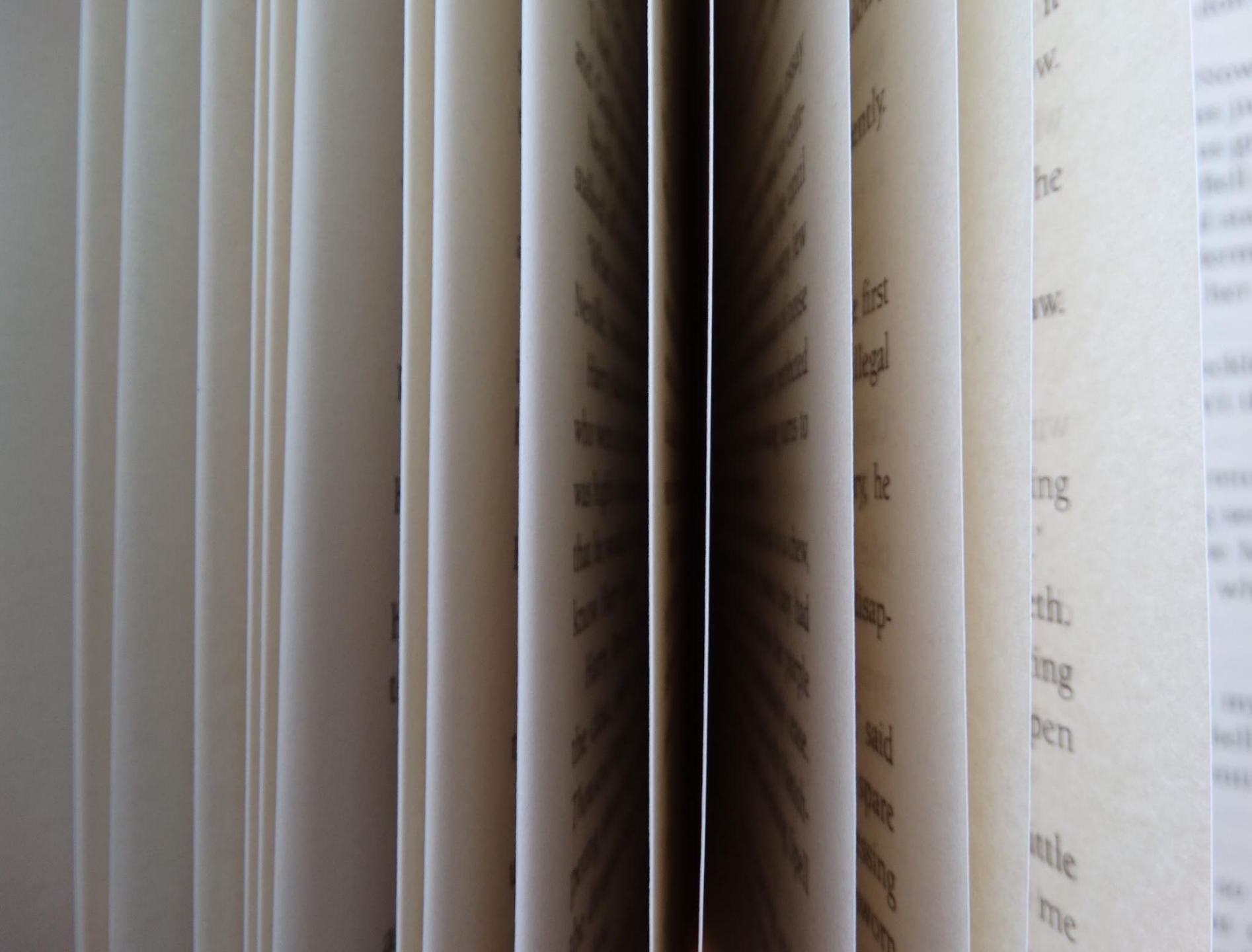
7. Population gap

- Population Gap: A population gap is a commonly identified gap among researchers. There always exist under-served populations that have been under researched. This gap exists when there are populations that were not properly represented or under-researched in the evidence based on previous researches (Robinson, et al, 2011 cited in Miles, 2017).

Types of Research Gaps

Types of research gap with examples (1:21 – 14:14)

<https://youtu.be/eIUvJIMWwU>



Types of gap (II)

Another Classification on types of research gaps

- Four types of research gaps
 1. The **classic** literature gap
 2. The **disagreement** gap
 3. The **contextual** gap, and
 4. The **methodological** gap

The **classic** literature gap

- This type of research gap emerges when there's a **new concept or phenomenon** that hasn't been studied much, or at all. For example, when a social media platform is launched, there's an opportunity to explore its impacts on users, how it could be leveraged for marketing, its impact on society, and so on. The same applies for new technologies, new modes of communication, transportation, etc.

1. The classic literature gap

- but a drawback you need to be aware of is that with this type of research gap, you'll be **exploring completely new territory**.
- This means you'll have to draw on **adjacent literature** to build your literature review, as there naturally won't be very many existing studies that directly relate to the topic.

2. The Disagreement Gap

- The disagreement gap emerges when there are **contrasting or contradictory findings** in the existing research regarding a specific [research question](#) (or set of questions).
- For this type of research gap, there needs to be a **relatively balanced set of opposing findings**. In other words, a situation where 95% of studies find one result and 5% find the opposite result wouldn't quite constitute a disagreement in the literature.

3. The Contextual Gap

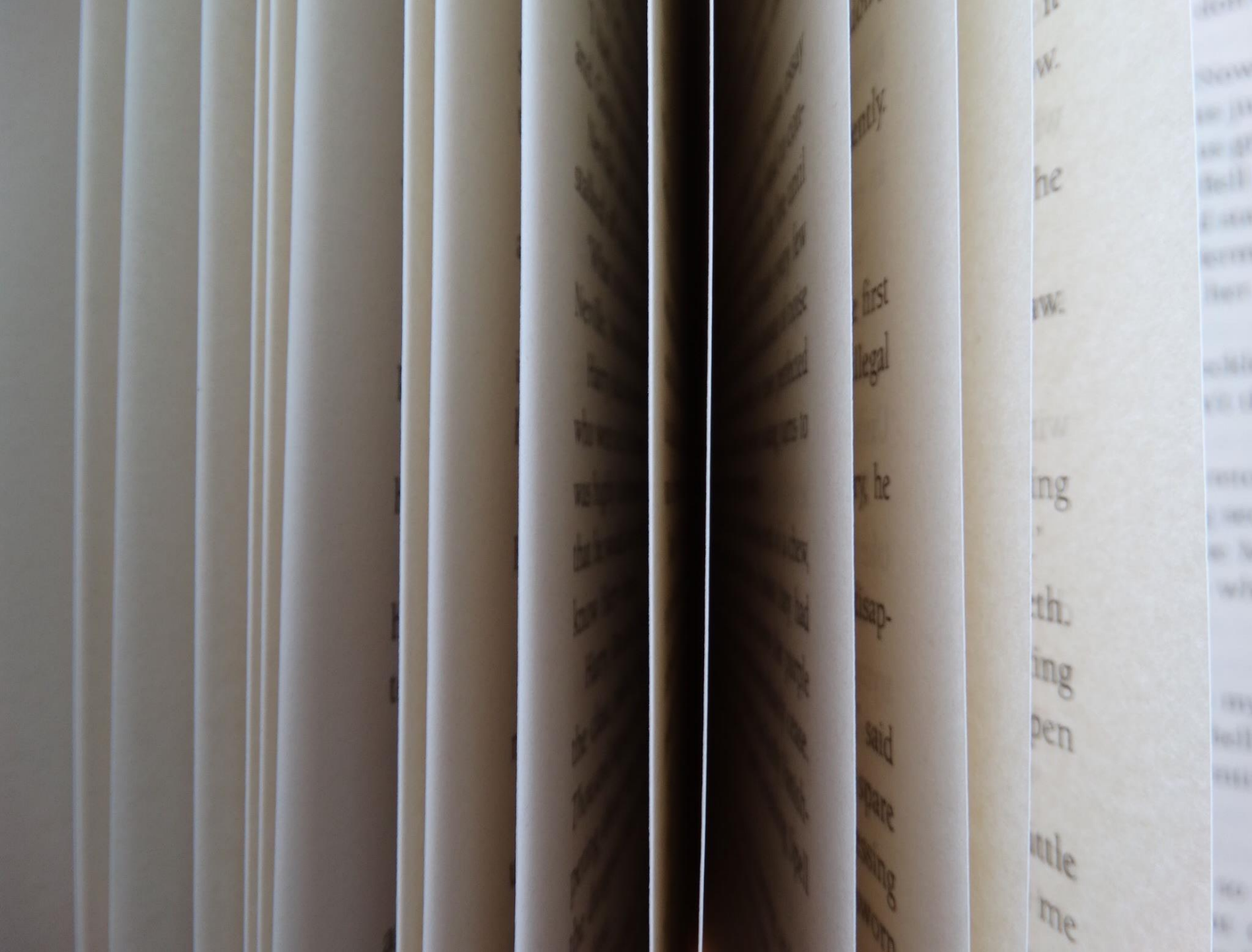
- The third type of research gap is the contextual gap. Simply put, a contextual gap exists when there's already a decent body of existing research on a particular topic, but an **absence of research in specific contexts**.
- For example, there could be a lack of research on:
 - A specific **population** – perhaps a certain age group, gender or ethnicity
 - A **geographic** area – for example, a city, country or region
 - A certain **time period** – perhaps the bulk of the studies took place many years or even decades ago and the landscape has changed.

3. The Contextual Gap

- you need to ensure that there's a **plausible reason** **why** you'd expect potential differences in the specific context you choose.

4. The Methodological Gap

- This type of research gap emerges as a result of the **research methodology or design** of existing studies. With this approach, you'd argue that the methodology of existing studies is **lacking in some way**, or that they're missing a certain perspective.



Gap Analysis

Identification of research gap – Gap Analysis

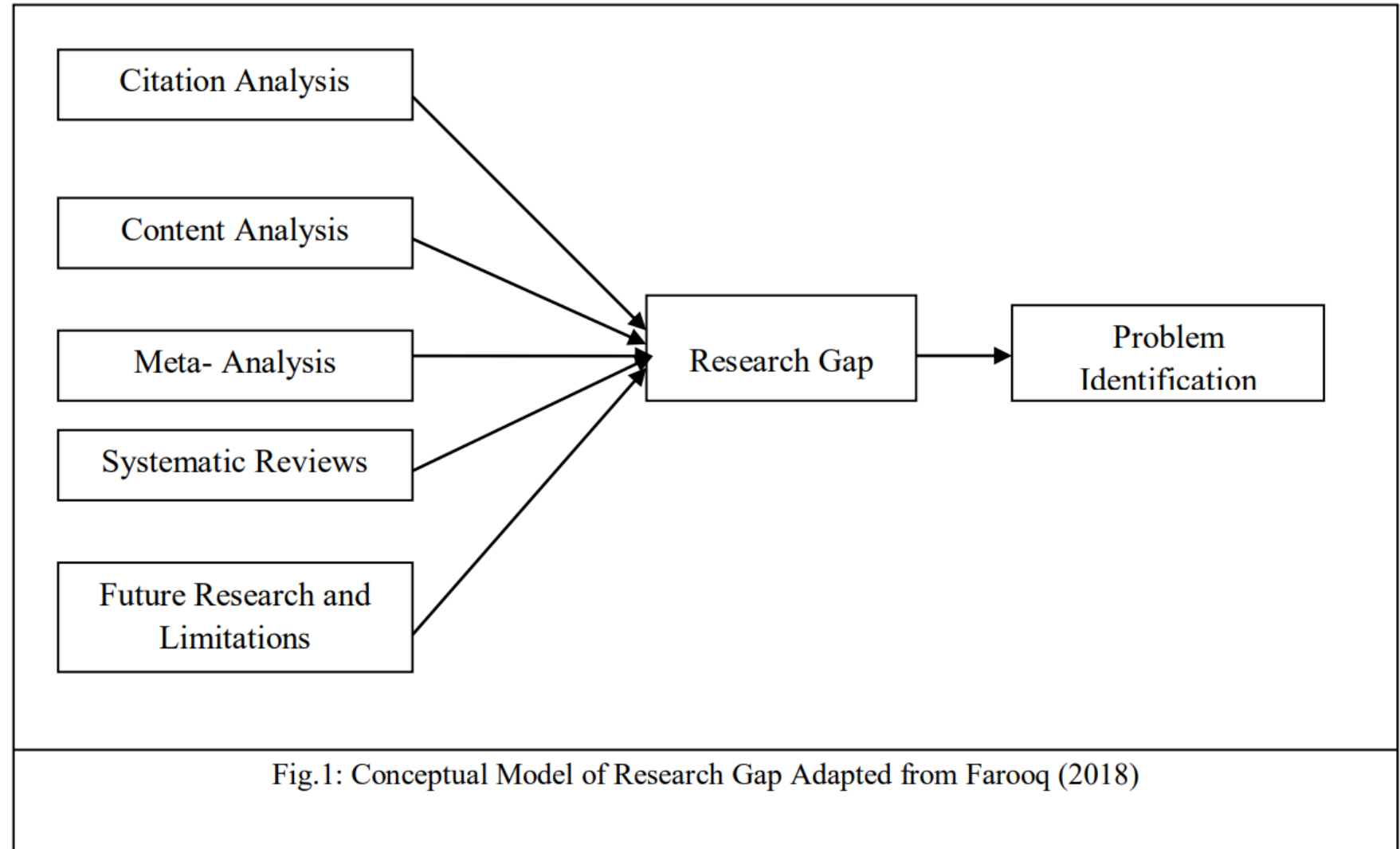


Fig.1: Framework for identifying research gaps in literature review

1. Citation Analysis

Citation Analysis

- "Citation analysis is a branch of bibliometric that examines the citations found in publications such as journal articles and books to look for patterns of use".
- Citation analysis is the dominant way to identify the research gap using Google Scholar, Scopus, Web-of-Science, CiteSeer, SciFinder, Faculty of 1,000 and scholarly databases including Ebsco, ProQuest, Emerald, etc., to identify the papers or studies with a maximum number of citations.

1. Citation analysis

- Citation analysis is one of the most effective ways to identify and analyse research gap (Farooq, 2018), as studies which are frequently cited provide the basic understanding about problem identification.

2. Content Analysis

- Content analysis is a research technique used in qualitative research to make decisions and conclusions by interpreting the texts, images and documents. Content analysis reports can be very supportive for identifying the research gap in a qualitative research (Farooq, 2018)

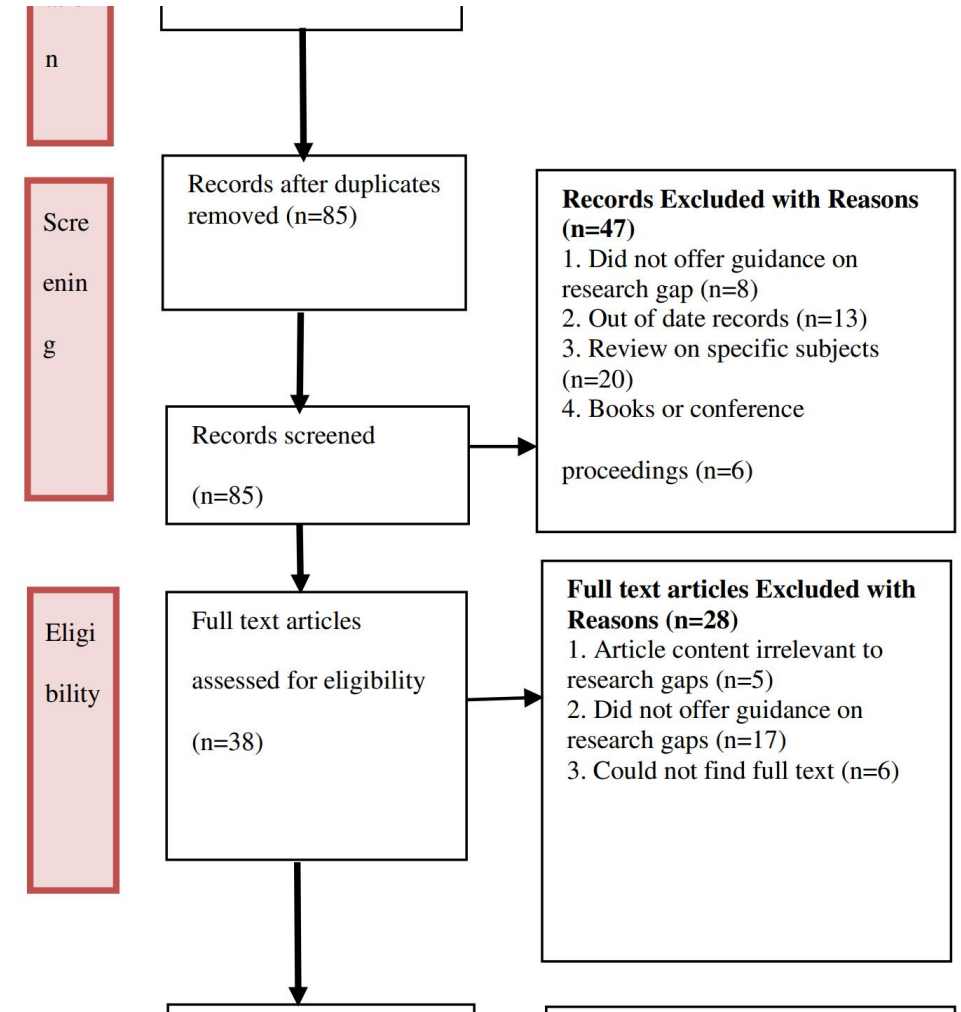


3. Meta-Analysis

Please refer to previous ppt file for details.

4. Systematic Literature Review

- Please refer to previous ppt file (W4) for details.





5. Future Research and Limitations

Activity 1

- Please revisit your in-class activity output and identify the potential gap.



Activity 2

- Based upon the results of Activity 1, please visualise the gap through one of the graphical methods learnt from the lecture.



Graphical methods for exploring data

Method	Description
Concept map	Useful when identifying key concepts in a document collection or research area.
Forest plot	Graphical representation of a meta-analysis depicting the relationship between the success rate of an intervention and its comparator.
Harvest plot	A method for combining research with different study designs and outcomes to give an overall visual effect.
Idea web	Used to conceptualise and explore connections among findings reported by the studies included in a review.
Logic model	Diagrams or flow charts that convey relationships between contextual factors, inputs, processes and outcomes.
Mind map	Diagram used to represent words, ideas, tasks or other concepts linked to, and organised around, a central key word or idea.
Network meta-analysis	Allows visualisation and interpretation of the evidence for specific conditions and multiple interventions.

Assignment Submission Due: 30th Sept 2026



References:

- Chapter 9 of the Sage Book: **Synthesising and analysing mixed methods data**. In: *Systematic Approaches to a Successful Literature Review*, 3rd ed, 2021.
- You might also find the following useful:
Pluye P, Hong QN. Combining the power of stories and the power of numbers: mixed methods research and mixed studies reviews. *Annual Review of Public Health*. 2014 Mar 18;35:29-45.

References:

- Azeez & Elegunde (2022) *Research Gaps in Management Sciences: An X-Ray of Literature*. Available from: https://www.researchgate.net/publication/361024833_Research_Gaps_in_Management_Sciences_An_X-Ray_of_Literature [accessed Mar 18 2025].
- Azorín, J. M., & Cameron, R. (2010). The application of mixed methods in organisational research: A literature review. *Electronic journal of business research methods*, 8(2), pp95-105.
- Mineraud, J., Mazhelis, O., Su, X., & Tarkoma, S. (2016). A gap analysis of Internet-of-Things platforms. *Computer Communications*, 89, 5-16.
<https://doi.org/10.1016/j.comcom.2016.03.015>
- https://www.researchgate.net/publication/361024833_Research_Gaps_in_Management_Sciences_An_X-Ray_of_Literature [accessed Mar 18 2025].



Q&A