

Commentary

Reimagining Research Gaps

Inayat Ali^{1,2}

1. Department of Anthropology, Fatima Jinnah Women University, Rawalpindi, Pakistan; 2. Department of Social and Cultural Anthropology, University of Vienna, Vienna, Austria

This commentary proposes a revised framework for classifying research gaps to enhance clarity and applicability in academic inquiry. Building on prior taxonomies by Miles^[1], it identifies overlaps among commonly cited categories such as evidence, empirical, knowledge, and practical-knowledge gaps. The revised classification consolidates redundant categories and introduces a new domain—the geographical gap—to address global disparities in research representation. Five categories are defined: (1) evidence or empirical gap, (2) knowledge or practical-knowledge gap, (3) methodological gap, (4) population gap, and (5) geographical gap. Drawing from interdisciplinary literature, this manuscript emphasizes the importance of inclusive methodologies, context-sensitive frameworks, and equitable knowledge production. This reimagined taxonomy aims to guide researchers, institutions, and policymakers in identifying underexplored areas and fostering more globally representative research agendas.

Corresponding author: Inayat Ali, inayat_qau@yahoo.com

1. Backdrop

Recently, a few posts on LinkedIn regarding research gaps caught my attention. The underlying aim of these posts was to create awareness among researchers in general and early-career researchers in particular, as focusing on research gaps is fundamental to advancing knowledge. The important post was by Asad Naveed^[2] with the title: *Need help choosing a new research topic? Find "research gaps"*—which was shared on 22 February. Within four days, it received more than 3,000 hits, 150 comments, and 650 shares. This social media attention shed light on the significance of the topic. The post contained five research gaps: (1) evidence gap; (2) empirical gap; (3) knowledge gap; (4) methodological gap; and (5) theoretical

gap (see figure 1: Five Research Gaps). Two gaps—i.e., the evidence gap and the empirical gap—are very analogous to each other.

In contrast, Miles^[1] mentions as many as seven research gaps—which include: (1) evidence gap; (2) empirical gap; (3) knowledge gap; (4) practical-knowledge gap; (5) methodological gap; (6) theoretical gap; and (7) Population Gap. Again, some classifications overlap, like “empirical and evidence gaps” as well as “knowledge and practical-knowledge gaps.”

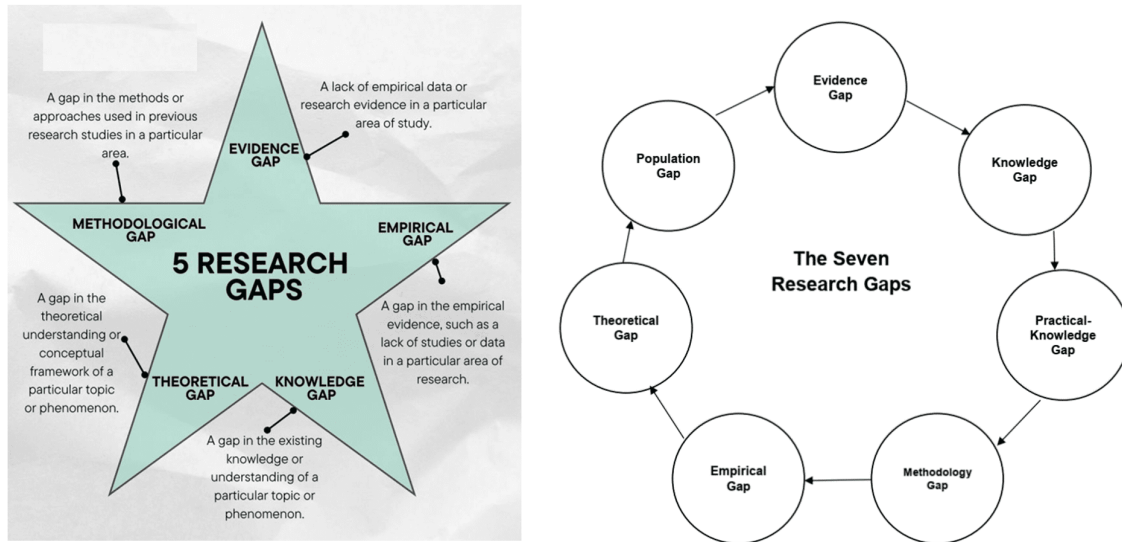


Figure 1. Left: Five Research Gaps^[2]. Right: Seven Types of Research Gaps^[1]

To address this overlap that might bring confusion, it is necessary to reimagine research gaps. I propose the following classification. It combines (a) empirical and evidence gaps into a single category, (b) merges knowledge and practical knowledge gaps, and (c) introduces a new gap—the geographical gap—as a distinct domain (see figure 2: Revised Research Gaps). Given that, the following major research gaps are proposed.

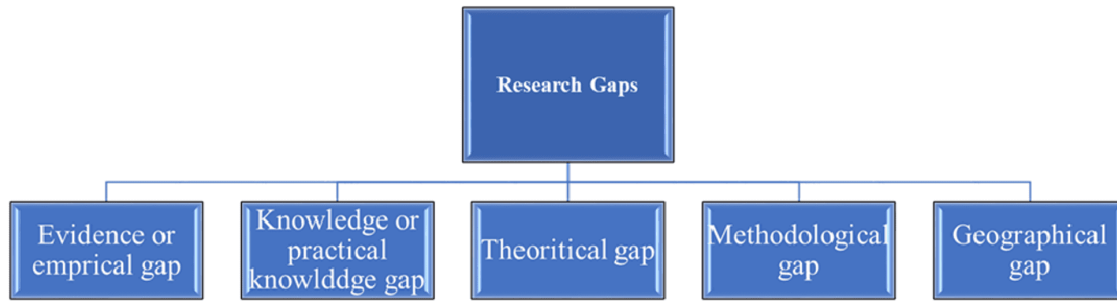


Figure 2. Reimagined Research Gaps

2. Evidence or empirical gap

This gap emerges when new evidence either challenges already prevailing and accepted conclusions or when empirical data to support prevailing assumptions is scant^{[1][3]}. This gap manifests in two key ways: (1) inconsistencies in prior research, where separate studies may yield valid conclusions singularly but appear collectively contradictory when examined and theorized at a higher level of abstraction^[4], and (2) insufficient empirical data, which contributes to unsubstantiated claims or gaps in knowledge to support a theory. A rigorous approach can help find this gap. Evidence, though, can be quantitative or qualitative depending upon the problem and the discipline.

3. Knowledge or practical knowledge gap

As the title suggests, this gap shows that knowledge formation is stagnant and lacks applications. Either existing knowledge is limited, or a disconnect appears between academic knowledge and real-world practice^{[5][6][7]}. In other words, the absence of foundational studies within a specific field or inadequate integrated theorizing of related domains. In both situations, there occurs a lack of understanding. Second, a disconnect between established knowledge and the actual behavior of professionals, where theoretical insights do not support translating effectively into practice^{[1][3]}. This disconnection between science and practice is also known as “the science–practice, research–implementation, research–practice, or knowing–doing gap”^[5]. Identifying these gaps is necessary to illuminate areas. These areas may require further empirical exploration as well as further research that critically pays attention to the gap between theory and practice. This gap aims at the synthesizing of interdisciplinary insights in order to create frameworks that bridge the gap between theoretical advancements and real-world challenges.

4. Methodological gap

It occurs at the time of the emergence of methodological limitations or inconsistencies, which affect the validity, reliability, or scope of findings. This gap emerges when prior studies rely on a singular or conventional methodology that may not fully capture the complexity of a research problem^{[1][3]}. Gridchyna et al.^[8] have highlighted methodological gaps in the assessment of the effectiveness of risk minimization interventions (RMIs). It is also possible and useful that we study the same problem with novel, interdisciplinary, or mixed-method approaches. We can introduce new methods, which may be grounded in the field^[9]. It will help bring new insights, which will enhance the depth and breadth of analysis.

5. Population gap

This gap reveals a gray area in research and knowledge when specific groups are either entirely missing from research or are inadequately represented due to biased or limited sampling. The sampling bias significantly creates a population gap. This gap is particularly evident among marginalized and underserved populations, including those defined by gender, race/ethnicity, socioeconomic status, age, disability, or other intersecting identities^[10]. In many cases, research relies on non-representative samples, leading to findings that inaccurately or misleadingly reflect the experiences of diverse populations. For example, Schoenmaker and Van Gool^[11] identified a large age gap in the case of dementia, which appeared due to a lack of methodological rigor, but it potentially affected the interpretation of research findings. Addressing this gap requires more inclusive sampling strategies, equitable research designs, and an intersectional approach to ensure that all relevant populations are adequately studied and represented in knowledge production.

6. Geographical gap

As argued earlier, a significant revision in the proposed framework is the recognition of the geographical gap as an independent category. Historically, research has been disproportionately concentrated in specific regions, primarily in the Global North, while other areas—particularly in the Global South—remain underexplored^{[12][13][14]}. Also, this geographical sampling bias creates misleading results. For instance, Adams et al.^[15] found that access bias to samples can stigmatize some places as being more ‘naturally’ violent. The lack of region-specific research affects knowledge production and makes it

“geographically-biased”. As a result, it causes the dominance of some geographies over “others” and creates challenges in applying these findings in diverse socio-cultural and political contexts. Drawing on the geographical gap, researchers can contribute to filling the uneven knowledge distribution and contextualizing their findings across varied geographic settings.

7. A Way of Conclusion

It is hoped that the revised research gap framework will help identify and fill gaps in scholarly work. Considering the similarities, I have merged empirical and evidence gaps as well as combined knowledge and practical-knowledge gaps. More importantly, a new gap—geographical gap—has been introduced to ensure a more equitable distribution of research efforts. The integration will have profound implications for both academia and policymaking. First, it encourages funding agencies and research institutions to prioritize underrepresented regions in their agendas. Second, it highlights the necessity of locally grounded research methodologies that are sensitive to the socio-political realities of specific geographies. Lastly, recognizing geographical gaps as a distinct category fosters interdisciplinary collaborations that leverage diverse perspectives and methodologies to create a more inclusive body of knowledge. Together, this framework not only refines academic discourse but also has the potential to guide future research funding and policy directions in a more inclusive and globally representative manner.

References

1. Miles DA (2017). "A taxonomy of research gaps: Identifying and defining the seven research gaps." *Doctoral student workshop: finding research gaps-research methods and strategies, Dallas, Texas.*
2. Naveed A (2025). "Need help choosing a new research topic? Find "research gaps." LinkedIn, accessed 26 February https://www.linkedin.com/search/results/all/?keywords=research%20gaps&origin=GLOBAL_SEARCH_HEADER&sid=..
3. Müller-Bloch C, Kranz J (2015). "A framework for rigorously identifying research gaps in qualitative literature reviews."
4. Geller PL (2021). "What Is Theorizing?" In *Theorizing Bioarchaeology*, 1-10. Springer.
5. Bertuol-Garcia D, Morsello C, El-Hani CN, Pardini R (2018). "A conceptual framework for understanding the perspectives on the causes of the science–practice gap in ecology and conservation." *Biological Reviews*.

93 (2): 1032-1055.

6. [△]Anderson TR (2007). "Bridging the educational research-teaching practice gap: The importance of bridging the gap between science education research and its application in biochemistry teaching and learning: Barriers and strategies." *Biochemistry and Molecular Biology Education*. 35 (6): 465-470.
7. [△]Bero LA, Grilli R, Grimshaw JM, Harvey E, Oxman AD, Thomson MA (1998). "Closing the gap between research and practice: an overview of systematic reviews of interventions to promote the implementation of research findings." *Bmj*. 317 (7156): 465-468.
8. [△]Gridchyna I, Cloutier A-M, Nkeng L, Craig C, Frise S, Moride Y (2014). "Methodological gaps in the assessment of risk minimization interventions: a systematic review." *Pharmacoepidemiology and drug safety*. 23 (6): 572-579.
9. [△]Ali I (2022). "Decolonizing Methodology: Proposing Kachahari a Socio-culturally Acceptable Qualitative Method." Available at SSRN 4941710.
10. [△]Robinson KA, Saldanha IJ, Mckoy NA (2011). "Development of a framework to identify research gaps from systematic reviews." *Journal of clinical epidemiology*. 64 (12): 1325-1330.
11. [△]Schoenmaker N, Van Gool WA (2004). "The age gap between patients in clinical studies and in the general population: a pitfall for dementia research." *The Lancet Neurology*. 3 (10): 627-630.
12. [△]Hedding DW, Breetzke G (2021). "'Here be dragons!' The gross under-representation of the Global South on editorial boards in Geography." *The Geographical Journal*. 187 (4): 331-345.
13. [△]Escobar A (2020). *Pluriversal Politics: The Real and the Possible*. Translated by David Frye. Durham, N.C.: Duke University Press.
14. [△]Ali I (2024). "An autoethnography of a transformative odyssey: decolonizing anthropology, the hegemony of English, and the pursuit of plurilogies." *Humanities and Social Sciences Communications*. 11 (1): 1-6.
15. [△]Adams C, Ide T, Barnett J, Detges A (2018). "Sampling bias in climate-conflict research." *Nature Climate Change*. 8 (3): 200-203.

Declarations

Funding: No specific funding was received for this work.

Potential competing interests: No potential competing interests to declare.