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# Navigating Literature Forest: A Metaphorical Guide for Conducting a Literature Review

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This scholarly narrative reimagines the literature review as an immersive, metaphorical expedition through Literature Forest, building on Zizzi's (2021) #ResearchMountain conceptualization of the research journey. As climbers of #ResearchMountain, the purpose of this narrative is to illuminate pathways students and early scholars can take when navigating the intellectual, methodological, and emotional processes of reviewing literature with clarity, purposefulness, and resilience. Climbers are guided through the expedition of hiking Literature Forest and introduced to approaches and practical tools for conducting rigorous review of the literature.

***Keywords:*** narrative scholarship, #ResearchMountain, research mentoring, research overview, scholarly synthesis

The metaphorical #ResearchMountain was coined by Dr. Samuel Zizzi in 2012 and first published as a scholarly contribution to the literature in 2021. As an allegorical conception, #ResearchMountain establishes a big picture conceptualization of doing research as an epic experience akin to climbing and conquering the world's most challenging and highest peaks (Zizzi, 2021). Embarking on #ResearchMountain is a journey that starts by bringing climbers (students/early scholars) and their experienced mountain guides (faculty mentors/advisors) together at *Basecamp* to set expectations and prepare for the expedition ahead. With the expert counsel of their guide(s) along the way, climbers move on to explore *Literature Forest*, ascend their *First Climb* drafting a research proposal, pass *Institutional Review Board Icefall*, traverse *Data Collection Ice Fields*, hike *Analysis Hill*, clamber up *Proposal Mountain*, and summit *Defense Peak*, to finally make it through *Dissemination Pass* presenting and ultimately publishing their research findings. For students and aspiring scholars, these research experiences can feel emblematic to summiting Mount Everest.

Zizzi's #ResearchMountain conceptualization is brilliantly crafted. Its symbolism blends metaphorical, philosophical, and practical approaches for navigating the joys and travails of landmark milestones involved in the research climb. Among them, the most foundational to scientific research is Literature Forest, arguably because its exploration is the basis for a *literature review*, which springboards new scientific inquiry. Unsurprisingly, an abundance of practical guides exist on how to conduct various types of reviews, with many universities having a literature review guide available for students (Atlas.ti., n.d.; Litmaps, 2024). Social networking platforms, like LinkedIn, are also frequented with infographics ranging from how to conduct literature reviews to the ins and outs of writing scientific manuscripts. What is common among these guides is their focus on the structural elements of what to include in a literature review, rather than providing details of how to navigate both the *process* and *experience* of conducting a literature review.

Amid all the research that exists in an ever-expanding digital world, it is no wonder students and even established academicians alike view the task of reviewing literature as an overwhelming phase to the start of any research project (Kamler & Thomson, 2006; McMaster University, n.d.). In fact, existing literature has highlighted stress (Bothello & Roulet, 2018; Cho & Hayter, 2020; Corwin et al., 2022) as well as *frustration*, *confusion*, and *disappointment* (Corwin et al., 2022) as common emotional responses students have to various research-related requirements, tasks,

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processes, and outcomes. *Imposter phenomenon* (i.e., a psychological experience of feeling like a fraud despite evident success) is also common among students and aspiring scholars, exacerbated in part by hyper-competitive academic environments and pressure to produce high-impact research (Bothello & Roulet, 2018). These emotional responses can also trigger secondary cognitive-emotional-behavioral responses such as a *sense of inadequacy, self-doubt,* and *fear of being exposed as unworthy*, all of which can undermine academic confidence and overall well-being, and thus negatively impact academic performance and productivity by delaying or stalling the #ResearchMountain climb. Meaning, many might get stuck at Basecamp before initiating the climb, or somewhere along the climb get thrust into the muddy terrain, unable to move forward. Given that the literature review is foundational for all scientific research, successful navigation of Literature Forest is paramount – and ideally, climbers are outfitted with the proper kits and trappings to assist them through challenging elements of the ascent. This scholarly narrative is an additional tool for the gear pack. What follows is a *guide* for #ResearchMountain climbers on *how* to navigate both the *process* and *experience* of hiking through Literature Forest.

## Welcome to Literature Forest

What typically starts as a leisurely walk around Literature Forest will ultimately culminate in a *literature review* – that is, a comprehensive summary, synthesis, and critical analysis/evaluation of the existing literature on a specific topic. A literature review informs the planned #ResearchMountain climb in many ways. *First,* it helps contextualize and situate the research plan with what is already known. *Second,* it outlines pertinent theories and models that inform the research plan. *Third,* it offers insight into previously used study designs and methods. *Fourth,* it identifies gaps and/or inconsistencies in research methodologies and knowledge. In doing so, a compelling literature review will inform research questions and aims, guide the selection of appropriate research designs, and make a case for the use of methodologies that can answer the research questions.

Like real forests, Literature Forest is vast, full of known and unknown trails, hidden clearings, and tangled thickets. With so many #ResearchMountain climbers worldwide, the scientific literature has expanded beyond traditional books and journal articles to include other forms of credible evidence. Alongside this growth, the different types of literature review have also increased. Grant and Booth (2009) identified at least 14 different types of literature review, many of which share overlapping features. Thus, it is normal for students and early scholars to feel confused and overwhelmed about the prospect of navigating Literature Forest and undertaking a literature review. Questions, such as: "Where do I start?", "How do I find all this research?", "What research is good enough?", "How much do I need to review?", and "What do I do once I have read all of this?" are common inquiries. Answering these questions requires preparations at #ResearchMountain Basecamp. Part of that preparation includes clarifying the *purpose* of the literature review, which will inform the type of literature review needed and the approach(es) taken to finding, organizing, synthesizing, and presenting the outcomes of the review. For example, is the purpose of a literature review intended to inform an essay, a thesis or dissertation project, a research grant proposal, or publish on a critically appraised topic, or synthesize the research literature with a (systematic) review and/or meta-analysis? Quality preparation, and time well spent at #ResearchMountain's Basecamp, will help clarify focus and save time and effort when venturing into and navigating Literature Forest, ideally with compass in hand.

## The Compass: Navigating Literature Forest

Even with detailed Basecamp preparations, it is easy to wander into Literature Forest aimlessly or to get lost in its undergrowth. Having a compass provides a steady direction and orients the #ResearchMountain climber to true north. A compass does not dictate which path to take; rather, it provides direction for navigating unknown trails with clarity and confidence. Guided by the wisdom of those who have walked the trails before, the compass presented herein aims to direct climbers on how to *explore* Literature Forest, and *how to capture* details of their discovery. With the help of a compass, Literature Forest becomes both a systematic and meaningful exploration, while balancing climbers' initial wonder and purposeful wander.

### Step In and Wonder

After Basecamp preparations, #ResearchMountain climbers will step into Literature Forest. To start, leave the compass in the backpack and just look around. At first glance, it is likely the forest appears vast, dense,

and perhaps complex. The first steps into Literature Forest may also feel *uncertain* and *overwhelming* as there are so many databases, sources, authors, and keywords to explore. Hiking the entire Literature Forest at once is not expected; rather, start the exploratory journey with wonder through the various databases and journals to get a sense of the terrain and what exists in the literature. Make note of how many sources various keyword searches yield, whether the use of synonyms broadens or narrows the search findings, and how searches change when keywords are added, deleted, or modified. Pay attention to when an evidence trail ends with "no results found," as this can open a clearing that could lead in multiple directions. The initial wander around Literature Forest should be filled with inquisitiveness, with little to no expectations. Simply observe what is in the forest, be curious and wonder, and revisit the preparatory notes and expectations established at Basecamp.

## Walk the First Trails Together

Making sense of Literature Forest can be disorienting or even confusing at times. Navigating it for the first time is not a journey to go alone; in fact, it is easier when shared in the company of experienced guides and fellow climbers. Walking the first few trails together can take many forms, most often in one-on-one or group discussion with mentors and/or peers. #ResearchMountain climbers should seek guidance on how to: (a) navigate and interpret the unfamiliar terrain, (b) spot hidden markers, and (c) organize and interpret findings. Spend time with guides and fellow climbers to learn what the forest holds and to understand the foundations of the existing literature. It is likely to include primary research (original data collection), secondary research (syntheses of research, such as narrative reviews, systematic reviews, and/or meta-analyses), and other scholarly products, such as theoretical/conceptual articles, commentaries, opinions, and books/book chapters, that contribute to knowledge development.

Walking the early trails together should help #ResearchMountain climbers learn how to systematically look beneath the forest canopy by examining the structure and patterns of its findings. This includes learning how to survey the roots of the forest, that is, the (theoretical) foundations of a research pursuit. Early trails should also help climbers learn how to evaluate the trunks of the trees, representing the rationale, purpose, research questions, methods, and analyses of the works of literature. Assessing whether the roots and trunks are theoretically sound and structurally strong, and whether the branches extend in meaningful directions that offer insight and understanding, is essential for informing future work.

The first trails, when walked in great company, provide essential context for the many paths that have already been pioneered through the forest, often forged by esteemed scientists in the field. Guides and peers with prior knowledge of Literature Forest can offer immediate insight into filtering searches by publication date and population characteristics, while also engaging in constructive discourse about research designs used and the strength of the evidence generated. Listen, absorb, and reflect on the knowledge and wisdom shared by guides and peers. Ask questions and seek answers. Indeed, through these intellectually rich discussions, new climbers learn how to traverse future explorations with confidence, equipped with refined kits and trappings specific to the climb ahead.

## While Walking, Chart the Trails

While in Literature Forest, it is important to chart the trails taken. Being specific and recording important navigational details will guide successful exploration outcomes. The level of detail documented will vary, depending on the *purpose of* the Literature Forest exploration and the *type of* literature review being conducted. Minimally, climbers should document: (1) databases (e.g., PubMed, Sport Discus, APA PsycInfo) and resources used (e.g., reference lists); (2) search strategies for each resource, including the search keywords and filters used (e.g., dates, language, and type of evidence); (3) the date each search was conducted; (4) the number of results for each search strategy; and (5) details of any individual academic journals (if applicable) that were searched separately. If the purpose of the Literature Forest exploration is to gather evidence for a critically appraised topic, a (systematic) review and/or meta-analysis, then charting the trails will form the foundation for the PRISMA Flow Diagram (PRISMA Executive, n.d.), a standardized visual representation of the article selection process routinely used in published reviews and meta-analyses.

## Take Field Notes

Beyond charting the trails, Zizzi (2021) underscores the value of detailed field notes when navigating Literature Forest. The focus of field notes may

vary, depending on the stage of exploration and anticipated outcomes. Early notes typically capture: (a) details related to the process of discovery, (b) #ResearchMountain climber's reflections from conversations with guides and fellow climbers, and (c) an abundance of unanswered questions. Early notes may feel scattered and confused, mirroring the climber's initial stages of wander and wonder around Literature Forest. It is common to feel overwhelmed by the challenge of choosing a path, keeping track of forest findings, linking the literature to emerging research ideas, and recognizing when saturation of the literature signals a need to pivot, recalibrate, and go in a new direction.

As climbers venture deeper into Literature Forest, field notes become more purposeful, ultimately shaping the ascent up #ResearchMountain. Purposeful notes help organize ideas, keep the compass aligned with true north, and serve three critical functions: (1) solidifying the theoretical foundation, (2) clarifying the rationale for research aims and questions, and (3) building an evidence-based justification for methodologies and methods. In short, purposeful field notes lay the groundwork for the *First Climb* – the research proposal, ensuring it withstands the scrutiny of *Proposal Defense, Institutional Review Board Review*, and the challenges of the #ResearchMountain climb.

### Prepare for Overnight Camping

Short trips to Literature Forest never get very far, and there are few, if any, shortcuts available. Take your time, spend the night. "Build a hut, warm yourself by the fire, get comfortable – you are going to be there awhile" (Zizzi, 2021, p. 26). Building a campsite and immersing oneself in the forest will allow climbers to make observations, deepen their understanding of the literature and its nuances, consolidate their thoughts and insights, discover why a particular area of the forest matters, and assess whether and how their personal assumptions have been challenged and why. This process encourages climbers to engage in reflective, metacognitive practice with the goal of recognizing their own role in research.

The more time spent in Literature Forest reading and reviewing the forest findings, the more patterns will begin to emerge. This time will also parallel the development of purposeful field notes and evidence that reveals patterns, gaps, themes, timelines, and/or frameworks. Take time to reflect on the discoveries and walk again with guide(s) and peer climbers to: (a) converse about how the research has evolved over time, (b) understand why certain areas have not been studied (yet), (c) identify what is underrepresented or overrepresented in the literature, (d) determine whose voices are dominant and whose are missing in the body of work, (e) evaluate consistent and conflicting findings and whether the evidence is convincing, and finally, (f) select the trails to further discover.

## Drawing the Map: Examining and Organizing the Findings

While the compass provides climbers direction for *how* to navigate unknown trails with clarity and confidence, ultimately it is the map that is drawn from the forest findings that matters the most when climbing #ResearchMountain. The map offers structure for how to: (a) study individual trees more closely, (b) systematically organize them, and (c) recognize clear pathways forward. With map and compass in hand, climbers can shift from initial wonder and purposeful wander to intentional interpretation. The map, when drawn in a systematic way, helps climbers transform scattered forest findings into coherent understanding of existing strengths, gaps, themes, and opportunities for future research explorations.

### Study the Trees

When creating a map of Literature Forest, the climbers should start by taking a systematic approach to sorting their findings. For most literature reviews, it is common to consider primary research articles published in peer-reviewed academic journals as the main source of acceptable evidence. Or, metaphorically speaking, robust literature reviews are anchored in trees that stand tall with strong theoretical and empirical roots, solid methodological and analytical trunks, with well-constructed and innovative branches pointing toward various cardinal and intermediate future directions.

However, it is likely that not every finding is of quality, or even appropriate for the purpose. The climber is typically faced with a thicket of trees, each unique in its own right with its own distinct anatomy. Some stand alone; some are part of a bigger cluster of trees. Some are sturdy with strong theoretical roots and well-executed methodology. Some look sturdy but, upon closer inspection, turn out to be hollow, lacking strong rationale, methods, or analysis. Some may turn out to lack structure or relevance to intended research. As climbers take a closer look at the trees and other forest findings, it is easy to stare with mixed emotions. Rest assured, getting started is the hardest part. But if

done in a systematic manner, the task becomes much easier, and – dare we say – empowering and fun.

Building on the skills learned while walking the first trails together with guide(s) and peer climbers, independent study of the trees should begin by examining the most visible characteristics of each to determine if it genuinely aligns with the intended purpose. As seen in Table 1, start by assessing each title and abstract to determine if the article should be retained or discarded. Once all articles have been independently assessed this way, shift the focus to the roots, trunk, branches, and leaves of each. When examining the roots, note what theories or conceptual framework(s) and past research guide the tree's development. Solid roots are a must, as their absence can result in misguided research questions and hypotheses. Next, climbers should evaluate whether the research design is suitable to answer the aims, ensuring the "trunk of the tree" is structurally capable of answering its own questions. Last but not least, climbers should evaluate the branches and leaves, thoroughly understanding how results add to the existing Literature Forest, and any potential limitations, implications, and future directions.

**Table 1.** Key Questions for Climbers

| Guiding Question | Function |
|---|---|
| Screening for Fit | |
| Does the study's title and abstract indicate relevance to the intended research? | Determines whether to retain or discard the source early in the process |
| Does the study examine a population, setting, or context aligned with the research focus? | Ensures the source is conceptually relevant and contextually aligned with the topic |
| Is the study's publication type and quality appropriate for inclusion (e.g., peer-reviewed, empirical)? | Filters sources that do not meet the quality standards for the review |
| Evaluating Theoretical Foundation | |
| What theory or conceptual framework informs the study? | Assesses strength of the study's foundation and its alignment with the research |
| Does the introduction synthesize key empirical evidence to justify the study? | Evaluates whether the study is well-anchored in existing scholarship |
| Does the introduction clearly identify existing gaps, contradictions, or assumptions to build a rationale for the study? | Identifies weaknesses or opportunities for critique and synthesis |
| Do the research questions or hypotheses follow logically from the introduction and rationale? | Ensures conceptual coherence and clarity of purpose |
| Are the research aims or hypotheses stated clearly and explicitly? | Supports accurate interpretation and comparison across studies |
| Appraising Methodological Rigor | |
| Is the research design appropriate for addressing the study's aims? | Evaluates whether the study is equipped to answer its own research questions |
| Are participants clearly described and relevant to the research topic? | Assesses generalizability and alignment with the research topic |
| Are the instruments or measures valid, reliable, and appropriate for the constructs measured? | Determines quality and trustworthiness of the evidence |
| Are the procedures described in sufficient detail to allow replication? | Assesses transparency, rigor, and methodological clarity and integrity |
| Are the analyses appropriate for the research questions or hypotheses? | Ensures the findings are derived from appropriate analytical approaches |

| | |
|---|---|
| Appraising Methodological Rigor (continued) | |
| Are the analytic assumptions explicitly addressed? | Evaluates the integrity of statistical or qualitative assumptions |
| Are the results presented clearly, accurately, and without overinterpretation? | Assesses accuracy, clarity, and scientific caution of reported findings |
| Interpreting Contribution to Research | |
| What does the study contribute to current scientific understanding? | Shows how the study adds to the wider literature |
| Do the conclusions logically follow from the reported results? | Confirms conceptual and analytical consistency |
| Are the study's limitations acknowledged and contextualized appropriately? | Helps identify boundaries of interpretation and opportunities for synthesis |
| What implications do the study offer for future research or practice? | Clarifies how the study extends directions for inquiry or application |
| Is the study sufficiently strong and relevant to warrant inclusion in the review? | Finalizes inclusion decisions based on quality and relevance |
| Does the study help build a coherent understanding of the research topic? | Ensures the study meaningfully strengthens the overall research narrative and rationale |
| Does the study support, challenge, or refine the direction of future research? | Clarifies how the study shapes or redirects the research topic |
| How does the study fit within the broader body of literature? | Assists with mapping the source into emerging themes or conceptual categories |

### Organize the Trees

Studying the trees often evokes a wide range of emotions – from frustration to joy, desperation to triumph, and hopelessness to accomplishment. Sorting and categorizing the trees can feel like untangling a chaotic mix, as not all share the same theoretical roots or methodological trunks. The sorting and categorizing process demands patience and critical thinking, which can be both exhausting and rewarding. To make sense of the forest findings, consider organizing the trees based on shared traits. For example, as shown in Table 2, organizing research articles by research design, population characteristics, and emergent themes, and representing them visually through tables, concept maps, or other tools. These visual aids help compare and contrast the findings systematically, allowing a better understanding of the individual trees and the shape of the forest they collectively form, and highlighting any pertinent gaps that might exist. When organizing the forest findings, lean on guides and peer climbers. A resilient mindset and persistence are keys to success – this is where Basecamp preparations, field notes, and reflective conversations by the campfire will help guide the process. Be patient and thorough, as time well spent deep in Literature Forest will sharpen the ability to navigate, interpret, and synthesize the literature's scholarly landscape with increasing confidence and insight.

## Reading the Map: Let the Evidence Speak

Emerging from Literature Forest, climbers must pause, unfurl their carefully drawn map, and "let the evidence speak" (Zizzi, 2021, p. 26). This reflective moment is essential for synthesizing what is known, identifying theoretical and methodological inconsistencies, and detecting what is missing from the evidence gathered. *An absence of evidence is, itself, evidence;* and can be informative: gaps or silences in the literature often indicate missing or inconclusive evidence, untested research questions, or theoretical or methodological limitations. Identifying gaps in the literature is important, as it helps clarify what is known and what remains unexplored.

**Table 2.** Sample Literature Review Organizer

| Authors | Level of Evidence (1-5) | Theory Used | Population Details | | | | | | Methodology | | | | | Key Results | Key Implications | Important Points |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Final (N) | Male *(n)* | Female *(n)* | Race/ Ethnicity | Age | Sports | Design | Constructs Used | Instruments Used | Reliability/ Validity | Analysis | | | |
| Zimmerman et al. (2024)[1] | 3 | Several discussed | 130 | 21 | 101 | Mostly Caucasian 115 | 18-24 *M* = 20.25 | NCAA Volleyball, basketball, field hockey, ice hockey, softball, lacrosse, soccer | Quantitative cross-sectional survey | Coach leadership behaviors; peer leadership behaviors; team (organizational) culture. | Leadership Scale for Sport (Chelladurai & Saleh, 1980) Organizational Culture Survey (Glaser et al., 1987) | Not tested beyond original measure | A path model analysis | Perceptions of **coach leadership** behaviors significantly predicted several aspects of *action-based team culture* Perceptions of **peer leadership**: Peer *Democratic behavior predicted* **Involvement** and **Supervision** | The authors also suggest that future research might explore **transformational leadership** (beyond LSS) as a way to deepen understanding of culture formation | *Key observations related to the future project* |
| | | | | | | | | | | | | | | | | |
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[1] Zimmerman, C. T., Vealey, R. S., & Myers, N. D. (2024). "That's how we do things here": An investigation into athlete perceptions of coach and peer leadership behaviors, and team culture. *Journal for Advancing Sport Psychology in Research, 4*(2), 35–51. https://doi.org/10.55743/000028

### Knowledge Gap

A *knowledge* gap happens when information on a specific research area lacks research, contains inconsistent or superficial findings, or when research lags behind new developments in the field. A Literature Forest Map with knowledge gaps typically shows the main trail, along with side trails that either lead to nowhere or have not been explored deeply enough to be documented. When reading the map, use the following questions to determine where: (a) the evidence thins out, (b) the trails disappear, and (c) new research may be needed most.

### Evidence Gap

An *evidence* gap happens when the available data on a topic is missing, limited, outdated, or too narrowly focused on a specific population, setting, outcomes, or timeframes to provide conclusive findings. A Literature Forest map with evidence gaps typically shows a well-trodden main trail, while side trails are faint, overshadowed, or marked by only a few footprints. When reading the map, use the following questions to determine where: (a) research conditions or contexts are underrepresented; (b) existing findings are outdated, inconsistent, or too limited to guide practice; and (c) new research is needed to strengthen and broaden the evidence base.

### Empirical Gap

An *empirical* gap happens when theoretical assumptions outpace direct, observable testing of the theory. A Literature Forest map with empirical gaps typically shows multiple theoretical roots, with little to no established trails in support. When reading the map, use the following questions to determine where: (a) theoretical assumptions remain untested, (b) replication or longitudinal observation is missing, and (c) new research designs and measures are needed to generate robust, direct empirical evidence.

### Theoretical Gap

A *theoretical* gap exists when existing conceptual models and frameworks do not adequately explain a phenomenon because existing research evidence contains contradictions, outdated or incomplete assumptions, or is missing cross-disciplinary integration. A Literature Forest map with theoretical gaps contains numerous trails that fail to connect to form a coherent and logical path forward. When reading the map, the following questions can assist climbers in determining where: (a) conceptual definitions or constructs lack clarity or are missing, (b) existing models or frameworks are inconsistent with existing research designs or findings, and (c) new, revised, or interdisciplinary frameworks are needed to better explain the phenomenon.

### Methodological Gap

A *methodological* gap happens when research fails to innovate or update research designs and methods to match the current state of knowledge. A Literature Review map with methodological gaps will typically show one path with an abundance of the same – be it populations, measures, procedures, or analyses used. When reading the map, use the following questions to determine where: (a) existing methodological choices limit validity, reliability, or depth of knowledge; (b) alternative, updated or more rigorous tools and analytical approaches could enhance the quality of evidence; and (c) diversification of sampling strategies, measurement approaches, or data collection timing is needed to strengthen methodological rigor.

### Follow the Gaps

Identifying pertinent gaps is an important part of the Literature Forest exploration. Together, these gaps reveal what is known, and not known about a topic, and will help climbers prepare for the ascent up #ResearchMountain. Reading the Literature Forest map with this level of precision will allow climbers to synthesize knowledge, justify methodological choices, and confidently identify meaningful direction for future research. By understanding where empirical evidence, theory, and methods fall short, climbers can create strong, robust, and innovative research moving forward.

## Digital Tools for Support

Identifying gaps is only part of the journey; navigating Literature Forest's vastness and complexity requires strategies that balance efficiency with scholarly integrity. Increasingly, researchers are turning to digital and artificial intelligence (AI) tools to support this process, reflecting the evolving nature of academic inquiry in streamlining the review process. Exploring Literature Forest, including the process of searching, sorting, and analyzing the evidence, and identifying research gaps, can be made easier with a few extra kits and trappings in

**Table 3.** Sample Questions for Identifying Research Gaps

| Guiding Question | Function |
|---|---|
| Identifying Knowledge Gaps | |
| Where does the evidence begin to thin out or offer only surface-level insight? | Identifies areas of research where understanding is limited, incomplete, or insufficiently developed |
| What topics has been mentioned in the literature but remain insufficiently investigated? | Identifies unexplored or underexplored areas of research that warrant deeper investigation |
| Where have new developments emerged that the literature has not yet addressed? | Identifies outdated literature and highlights areas in need of updated research |
| Identifying Evidence Gaps | |
| Which populations, context, or outcomes are underrepresented or missing in the existing literature? | Identifies research conditions or context that have limited or no evidence. |
| Where is the available evidence outdated, inconsistent, or too limited to support clear conclusions? | Identifies areas where current findings require updating, replication, or further clarification. |
| Which additional data sources, methods, or perspectives are needed to strengthen and expand the current evidence base? | Identifies opportunities to enhance the research are through methodological improvement or expanded data collection. |
| Identifying Empirical Gaps | |
| Which theoretical assumptions or proposed relationships lack empirical evidence? | Identifies theoretical claims that require systematic testing to establish or refute validity |
| Where are replication studies, longitudinal observations, or repeated measurements missing or insufficient? | Identifies areas of research where the evidence base lacks consistency, depth, or verification across studies |
| Which research designs, measures, or data-collection procedures are needed to generate rigorous and credible empirical evidence? | Identifies methodological requirements needed to produce strong, direct empirical support for theoretical claims |
| Identifying Theoretical Gaps | |
| Which conceptual definitions, constructs, or explanatory mechanisms lack clarity or coherence? | Identifies areas where concepts require refinement, clearer boundaries, or stronger theoretical grounding |
| Where do existing models or frameworks conflict with one another, or with current research designs and findings? | Identifies inconsistences between theoretical propositions and empirical evidence, signaling the need for theoretical revision |
| Where are new, updated, or interdisciplinary frameworks needed to better explain the phenomenon? | Identifies opportunities to enhance theoretical understanding through revised approaches |
| Identifying Methodological Gaps | |
| Which methodological choices limit the validity, reliability, or depth of the findings? | Identifies aspects of current research designs, measures, or analyses that constrain the quality or interpretability of results |
| Where could alternative, updated, or more rigorous tools, technologies, or analyses enhance the evidence? | Identifies opportunities to strengthen research through methodological innovation |
| Where can greater diversification in sampling, measurement, or data collection timing improve methodological rigor? | Identifies limitations caused by homogenous methodological choices |

the gear pack. Tools like Covidence, Rayyan, Syras, and Zotero offer structured workflows for searching, navigating, evaluating, and organizing Literature Forest's findings. These digital tools, and others like them, can assist with citation screening, data extraction, and risk-of-bias assessment (Documind, 2024). If used well, digital tools may reduce redundancy, support collaboration, and enhance transparency. AI-powered platforms, like Documind, are also transforming how researchers interact with Literature Forest findings. Sophisticated digital companions allow scholars to upload PDFs, extract summaries, identify gaps, and even talk about articles conversationally. #ResearchMountain climbers may benefit from these technologies at various stages of the process, by organizing and categorizing forest findings and accelerating the path from Literature Forest exploration to insight.

Incorporating digital companions into Literature Forest exploration may enhance efficiency and certainly reflects the evolving nature of academic inquiry. To omit them would risk presenting an outdated view of how literature reviews are conducted in the digital age. However, it is essential to approach these tools with a critical mindset. While digital companions can streamline some processes, they must not replace the climber's own intellectual engagement with the literature material. Overreliance on automation risks undermining the development of core skills like critical reading, thematic analysis, and conceptual reasoning. Additionally, academic integrity demands #ResearchMountain climbers produce original work, properly attribute sources, and understand the content they present. Thus, digital tools should be viewed as supports, not substitutes, for scholarly thinking and rigor. Learning to navigate Literature Forest manually, before relying on digital crosscuts, ensures climbers build the resilience, insight, and ethical foundation necessary for meaningful scientific inquiry.

## Emerging from Literature Forest: Writing the Literature Review

Literature Forest's exploration will ultimately culminate in a *literature review*, a carefully crafted written narrative that crystallizes insights gained from the journey. Although the expected written product will differ depending on the purpose and type of review conducted, a few essentials will remain constant. For instance, the literature review will always serve to synthesize knowledge by highlighting emergent patterns, contradictions, and gaps in the extant literature. Typically, this means organizing knowledge of a particular topic thematically, chronologically, and/or methodologically, whichever is the most appropriate for the purpose and type of review conducted. A well-executed literature review will also include details of the methodology used to carry out the review itself, so that it can be later replicated. Capturing the process of doing the review demonstrates transparency and enhances the credibility of the review that was undertaken. Done well, a literature review will also outline clear paths for future scientific inquiry that would strategically address any one or more of the existing knowledge, evidence, empirical, theoretical, and/or methodological gaps that were identified through the literature review. Simply put, a well-written literature review provides strong intellectual rationale for new research, alongside sound justification for the proposed methods and methodology for carrying out new research, in turn demonstrating a climber's readiness to prepare for their *First Climb*.

To effectively write a literature review, the climber must become fluent in the scientific language of their academic field. Each discipline follows its own conventions for structure, syntax, argumentation, and citations. Learning these nuances of the field is essential for producing clear and credible scholarly writing. Reading, though, precipitates writing. In Stephen King's (2010) book, *On Writing: A Memoir of the Craft*, he wrote: "If you don't have the time to read, you don't have the time (or the tools) to write. Simple as that." (p. 174) – a sentiment that applies to academic writing as well. Immersing oneself in the literature provides exposure to disciplinary writing style, logical patterns, and conventions (e.g., Publication Manual of the American Psychological Association), allowing #ResearchMountain climbers to internalize the precision and coherence expected in scholarly communication. Through ongoing reading, climbers will develop the linguistic tools needed to accurately and rigorously synthesize empirical research, presenting it in a clear and parsimonious way, free from personal opinions.

Writing a literature review, much like the Literature Forest exploration itself, begins with a single, imperfect start. Early drafts are expected to be just that: unfinished and imprecise, filled with streams of thought and ideas that usually are not yet organized and coherent. Parsimonious academic writing is

a skill that takes practice and multiple revisions. Starting early and allowing time for reflection and restructuring is essential, especially in the academic culture of publish-or-perish. In the pursuit of academic recognition, such institutional and systemic demands can tempt climbers to prioritize quantity over quality, increasing the likelihood of methodological shortcuts or other questionable and/or unethical practices (Bekkouche et al., 2021; Van Dalen, 2021). Such shortcuts, while alluring in the moment, will ultimately cost climbers more time, invite errors, and heighten the risk of academic misconduct. Committing to a deliberate, iterative writing process that includes repeated review and constructive comment from guides and fellow climbers will ensure both the integrity and quality of the literature review as it takes shape through continual revision. Ernest Hemingway (1964) captured the iterative art of writing in his memoir, *A Moveable Feast: Sketches of the Author's Life in Paris in the Twenties*, where he shared his philosophy on the importance of revision in writing: "The only kind of writing is rewriting."

## The Last Campsite: Final Words

Hiking through Literature Forest is an intellectually and emotionally demanding experience. The process demands #ResearchMountain climbers' cognitive endurance, as they navigate dense, complex, and sometimes contradictory scholarly terrain. Having the ability to zoom out to understand the broader scholarly landscape and to zoom in to examine the detailed nuances of each empirical research article is essential. Afterall, "When you write [a book], you spend day after day scanning and identifying the trees. When you're done, you have to step back and look at the forest." (King, 2010). This intellectual flexibility supports climbers' capacity to recognize emerging theories, methods, and/or interpretations as they appear in Literature Forest.

Emotionally, feelings such as frustration, confusion, joy, triumph, inadequacy, and even experiences of imposter phenomenon are common and valid when exploring Literature Forest and writing a literature review, especially the early drafts of a literature review. Such emotional responses, though, signal engagement with the process and reflect a commitment to understanding the literature with accuracy and care. When navigating the tangled terrain of Literature Forest, especially when the trails are unclear or absent, strong emotional responses can signal effort and determination to master the required tasks that come with growth and command of the literature.

To manage the intellectual and emotional demands of Literature Forest, climbers are encouraged to: (a) lean on guides and peer climbers for support; (b) create space for rest and reflection; and (c) practice helpful, health-promoting coping strategies. Seeking and accepting support from guide(s) and peers is instrumental throughout the #ResearchMountain expedition, including Literature Forest. Joining writing groups, sharing challenges, and listening to others normalizes the experience and reinforces connection. You are not alone; there are others who hear and understand the journey. Being inquisitive, asking hard questions, and engaging with the literature are imperative for intellectual and emotional growth. Much like seeking support, creating space for rest and reflection is also critical for successful forest exploration. This may include intentional breaks, journaling, or establishing grounding rituals such as tea, music, or an environment that promotes calmness and focus. Coping strategies such as self-compassion, reframing setbacks as part of growth, and the use of affirmations can help climbers stay grounded, maintain a realistic perspective, and continue to move forward with clarity and resilience.

Literature Forest may seem vast and tangled at first, though with thoughtful preparation, steady guidance, and intentional reflection, the journey can be transformative. Success in hiking the forest is not defined by shortcuts or speed, but by full engagement in the process: walking the trails, studying the findings, and letting the evidence speak. For those guiding or climbing, remember: the forest will always be there, rich with paths yet to be explored with curiosity and confidence. The climb is worth taking, for what is revealed about the literature, and what it reveals about the climber.

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