

# Writing an Introduction: Positioning your Work and Connecting to the Literature

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Innovation and Change in Professional Education 19

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## Story, Not Study: 30 Brief Lessons to Inspire Health Researchers as Writers

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Perspectives on  
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|    | <small>THE WRITER'S CRAFT</small><br>Writing with ChatGPT: An illustration of its capacity, limitations & implications for academic writers<br><i>Lingard</i>  | <small>Jun 29, 2023</small><br><a href="#">12(1)</a> : 261-270 |    |
|   | <small>THE WRITER'S CRAFT</small><br>The Art of Revising<br><i>Watling</i>   | <small>Jun 20, 2023</small><br><a href="#">12(1)</a> : 247-252 |    |
|  | <small>THE WRITER'S CRAFT</small><br>Metacommentary: Identifying and Mastering 'Dear Reader' Moments<br><i>Lingard</i>   | <small>Feb 20, 2023</small><br><a href="#">12(1)</a> : 50-55   |  |
|  | <small>ORIGINAL RESEARCH</small><br>Strategic Paragraphing 2.0: Techniques for Enhancing Inter-Paragraph Coherence<br><i>Foo &amp; Lingard</i>   | <small>Jan 6, 2023</small><br><a href="#">12(1)</a> : 20-24    |  |



# Objectives

- Articulate a framework for writing effective introductions that position and connect your work in the literature
- Design a strategy to help you strategically read and capture key information from relevant articles
- Organize information into a series of claims that justify your study

How do you  
approach the  
lit review?



# Introduction: Traditional Approach



- x States the purpose of the study / article
- x Provides detailed information about a problem and its relationship to the study
- x Clearly articulates the research question
- x Describes key references and how the study contributes to the literature
- x Identifies the study's theoretical and methodological frameworks
- x Defines important concepts and variables
- x Offers an overview of the study

# Lit Review: Common Misconceptions

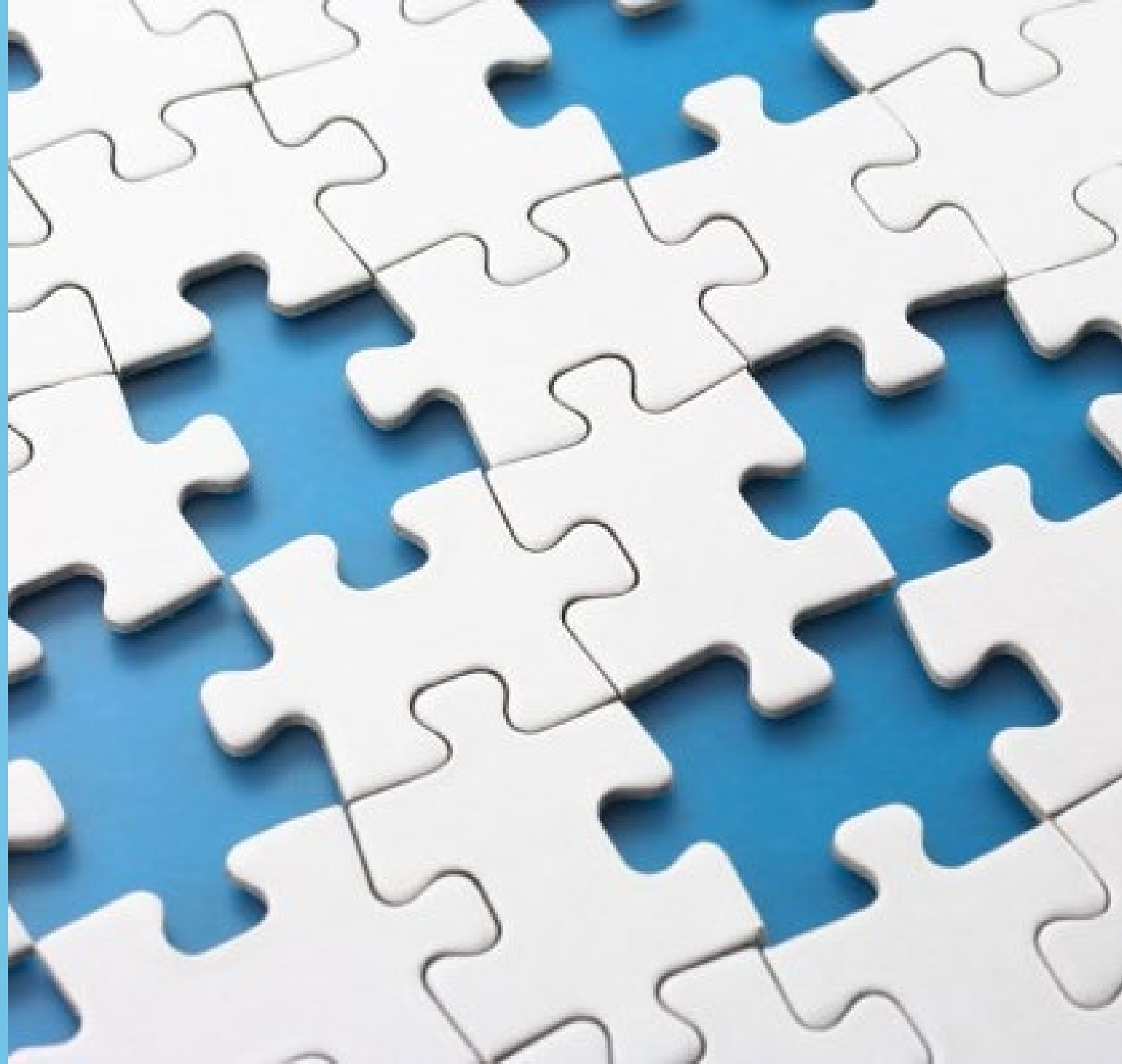
The purpose of the lit review presented in a manuscript is to...

- Summarize everything there is to know about the topic (Yikes!)
- Explain everything known about the problem (Still daunting!)



# Lit Review Reconceptualized

- Piece together a series of knowledge claims
- The pieces mostly fit together but...
- There are some gaps



# Introduction: Conversation Approach



- x Identify a **problem** people are talking about
- x Establish a **gap** in the current knowledge or thinking about the problem
- x Articulate a **hook** that convinces readers this gap is of consequence

“Ideally, these three elements appear in the first paragraph or two.”

- The problem is ...
- What we know is ...
- But we don't know ...
- And this matters because ...

# The Lit Review **Maps the Gap**

- Convinces readers that the problem you identified has not yet been solved
- Describes existing knowledge to point out the gap your work fills

\*Especially important in well-studied fields

# Problem / Gap / Hook

Infections are among the most common diseases physicians encounter; however, research shows that physicians have difficulty both determining when antimicrobial therapy is warranted and selecting appropriate antimicrobials. Poor antimicrobial choice can have negative consequences for patients and harm society at large by contributing to the global crisis of increasing antimicrobial resistance. Therefore, gaining a clear understanding of how physicians make choices about antimicrobial prescribing is critical for helping medical educators determine how to most effectively teach this topic to trainees and providers.

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# Problem/Gap/Hook

## Map the Gap

What do we already know about this problem?


- *We already know that ...*

What is the gap in our current knowledge?

- *What we don't yet know or fully understand is...*

The literature review is a series of supported claims  
that map out the gap

# Map the Gap



Infections are among the most common diseases physicians encounter; however, research shows that physicians have difficulty both determining when antimicrobial therapy is warranted and selecting appropriate antimicrobials. Poor antimicrobial choice can have negative consequences for patients and harm society at large by contributing to the global crisis of increasing antimicrobial resistance. The lack of research on how physicians choose which antimicrobials to prescribe presents a critical barrier to reducing antimicrobial resistance. Gaining a clear understanding of how physicians make choices about antimicrobial prescribing is critical for helping medical educators determine how to most effectively teach this topic to trainees and providers.

# Let's Talk More About Gaps...





# Characterize the Gap

- Knowledge Deficit
- Shortcomings in Scholarship or Interventions
- Controversy
- Pervasive, Unproven Assumption
- A Mysterious Aspect of a Phenomenon

# Knowledge Deficit

- Descriptive: We don't know how clinicians select antimicrobials
- Justification: Training in anti-microbial stewardship has been proposed as a way to improve sub-optimal anti-microbial selection, but existing training lacks robust evaluation
- Clarification: We have some ideas about factors that influence clinicians' selection of antimicrobials, but we don't know which factors are most influential and how context influences these factors.

# Shortcomings & Controversy

## Shortcoming in Scholarship or Interventions

- Inappropriate or insufficient use of theory/evidence
- Methodological limitations or flaw
- Widely used, poorly defined construct
  - E.g. Feedback, expertise, professionalism, equity, clinical reasoning
- Interventions that do not have desired impact

## Controversy

- Some scholars advocate de-biasing strategies to prevent diagnostic errors, others dismiss these as bunk

# Assumptions & Mysteries

## A Pervasive and Unproven Assumption

- If we had more time, we'd teach more
- If we all focus on the best interest of the patient, our work together will go smoothly
- If we teach people the skills of inquiry, they will use them in clinical practice

## A Mysterious Aspect of the Phenomenon

- People say they want feedback, but rarely ask for it

# How do you find a Gap?

- Explore the literature
- Know the relevant literature well
- State the key knowledge claims
- Identify the deficits, shortcomings, questionable assumptions, debates, mysteries



# Know the Relevant Literature

- ✓ Read for connections as well as content
  - Who's part of the conversation? Who's not?
  - What are they saying to each other?
- ✓ Note the gaps left by each paper
  - Surprising, unexplained findings
  - Limitations (acknowledged or not)
  - Areas for future research

# Collecting & Analyzing Literature

Key Topics	Authors	Title	Aim, Purpose, RQ	Methods	Key Findings	Limitations/ Future Work	Notes
Educator Support / Fac Dev	Tassoni D, Kent F, Simpson J, Farlie MK	Supporting health professional educators in the workplace: A scoping review	Explore what is known about support options for health professional educators in the workplace through the lens of learning organizations.	thematical analysis; 50 records eligible		Doesn't differentiate between supports implemented versus requested.	
Educator Support / Fac Dev	Misky GJ, Sharpe B, et al.	Faculty Development in Academic Hospital Medicine - A scoping review	Identify and describe faculty development programs in hospital medicine/other specialties	scoping review with studies of various results including qualitative and mixed methods		scoping review included heterogenous mix of articles with various methods of evaluation (including many without formal evaluation)	
Educator Support / Fac Dev	Johnston A, et al	Currencies of recognition: What rewards and recognition do Canadian distributed med ed preceptors value	Better understand how rural and "Distributed Medical Education" (DME) Faculty value various forms of recognition	Mixed methods via survey		study is focused on rural/DME faculty who by definition are not practicing at an academic medical center	
Educator Support / Fac Dev	Snook AG, Schram AB, Arnadottir SA.	We have different needs': Specifying support for classroom and clinical sessional educators.	Contrast classroom and clinical sessional educators' experiences of and perceived needs for connectedness, appreciation and support, in relation to their teaching quality	Focus groups with questions based on prior survey.		One center, outside of US, with PT faculty	



# List Knowledge Claims

## “Incremental Insights”

- How does the author use previous work to build an argument for their study?
- What do they include? What do they leave out?
- Who are the key voices in the conversation?
- Are they saying similar or different things?

# Example Knowledge Claims Table

## Mapping the Gap: Knowledge Claims Table

<b>Problem:</b> Physicians contribute to antimicrobial resistance by making poor choices about when and which antimicrobials to prescribe.	Ingram 2012, Akloufi 2015, Fleming-Dutra 2016, Roger 2019, CDC 2020
<b>Key Knowledge Claims</b>	<b>Evidence/Literature</b>
Studies have identified factors in physicians' decisions to use antimicrobials generally and decisions whether to treat with antimicrobials	Teixeira 2013, Livorsi 2015, Linder 2003 & 2012 & 2014
Physicians' decisions about treatment choices include multiple factors including biomedical, social, experiential	Denig 1993
Conceptual models have been proposed for antimicrobial selection, with no empirical basis or validation	Fishman 2006, Tamma 2019
Clinical reasoning literature describes how physicians process and assimilate prior knowledge with current patient info	Cook 2018
Though most of the clinical reasoning literature focuses on diagnostic reasoning, some have proposed initial models of therapeutic / management reasoning	Cook 2019
Script theory has been used to explain diagnostic reasoning (illness scripts) and some have proposed the idea of therapy scripts to explain management reasoning and therapy selection	Bissessur 2009, Mamede 2014
Clinical reasoning experts agree that much work needs to be done to understand the reasoning process for treatment choices	Cook 2018 & 2019
<b>Gap:</b> Existing studies and literature have not a) looked at relationships among factors, b) provided evidence to support or refute proposed models (conceptual), c) looked at antimicrobial selection in specific cases (vs. in general) d) drawn on clinical reasoning frameworks (A KNOWLEDGE DEFICIT GAP AND SOME SHORTCOMING IN SCHOLARSHIP FOR NOT USING SCRIPT THEORY TO DESIGN STUDIES)	
<b>Purpose:</b> To investigate the decision-making process that underlies experienced physicians' antimicrobial choice (hereafter, antimicrobial reasoning), approaching the question	

Abdoler et al. Following the script: An exploratory study of the therapeutic reasoning underlying physicians' choice of antimicrobial therapy. *Acad Med.* 2020.

# Additional Considerations

## 1. Positioning Your Voice

- Disagreement
- Qualified agreement
- Objectivity

## 2. Positioning Scholars and Groups

- Who are the major voices or groups? Are there tensions/debates among them?
- Have there been major turns/shifts?
- How is each positioned relative to the other?

# Additional Considerations

## 3. Establishing Credibility

- Facts
- Referencing sources or people
- Demonstrating knowledge of related work
- Invoking relevant lived experience

# Don't forget the Discussion

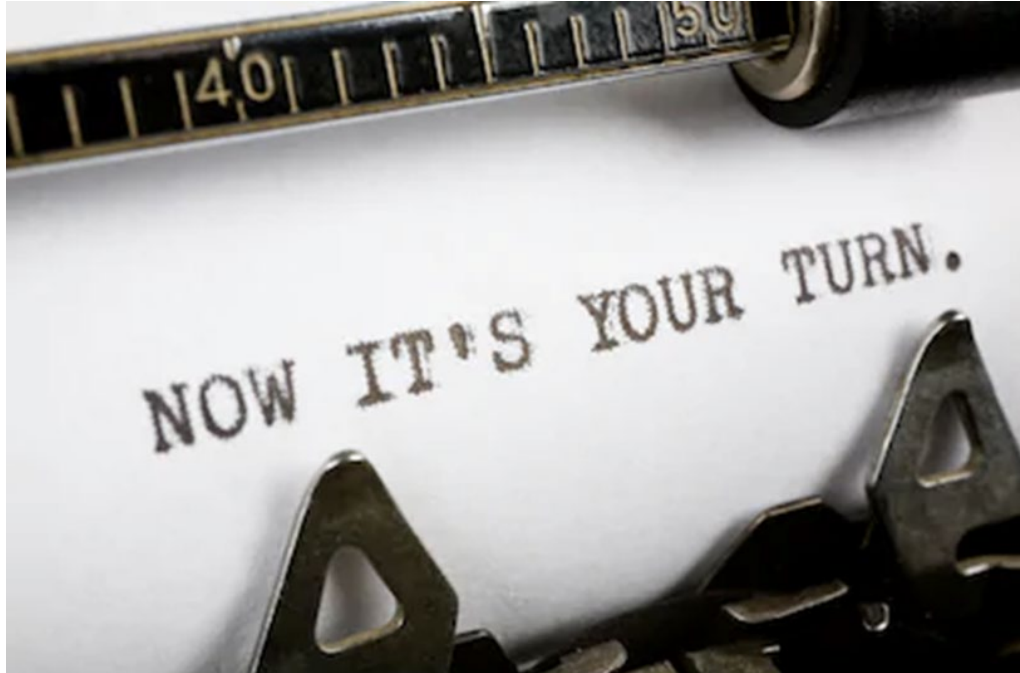
- Revisit the gap
- Reconnect with the literature
- Reposition your study

## Discussion

Our study illuminates therapeutic reasoning within the context of antimicrobial selection and elucidates multiple factors influencing physicians' reasoning process. Using our findings, we have generated a detailed model of this process that supports the existence of "therapy scripts" or the case-independent knowledge a physician has about a given antimicrobial. In addition, we have elucidated the type of antimicrobial characteristics physicians include in these therapy scripts.

Over a third of the factors and antimicrobial characteristics we identified have limited or no representation in the existing literature on antibiotic decision making (see Table 4, middle column); however, because the majority of prior studies examined the decision to prescribe antibiotics generally<sup>7-10,23</sup>—rather than use of a single antibiotic particularly<sup>19,20</sup>—some of this discrepancy

# Activity: Jot down some ideas for your Gap



It may help to think about your gap in context of the problem and what you think is known.

- The problem is ...
- **What we know is ...**
- **But we don't know ...**
- And this matters because ...

Thank You! Questions?

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