Writing up health professions education scholarship for publication

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Disclosures & Caveats

- Editor for *Journal of Graduate Medical Education, AEM & AEMET*
- Co-director ARMED MedEd
- No financial conflicts of interest

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Session Objectives

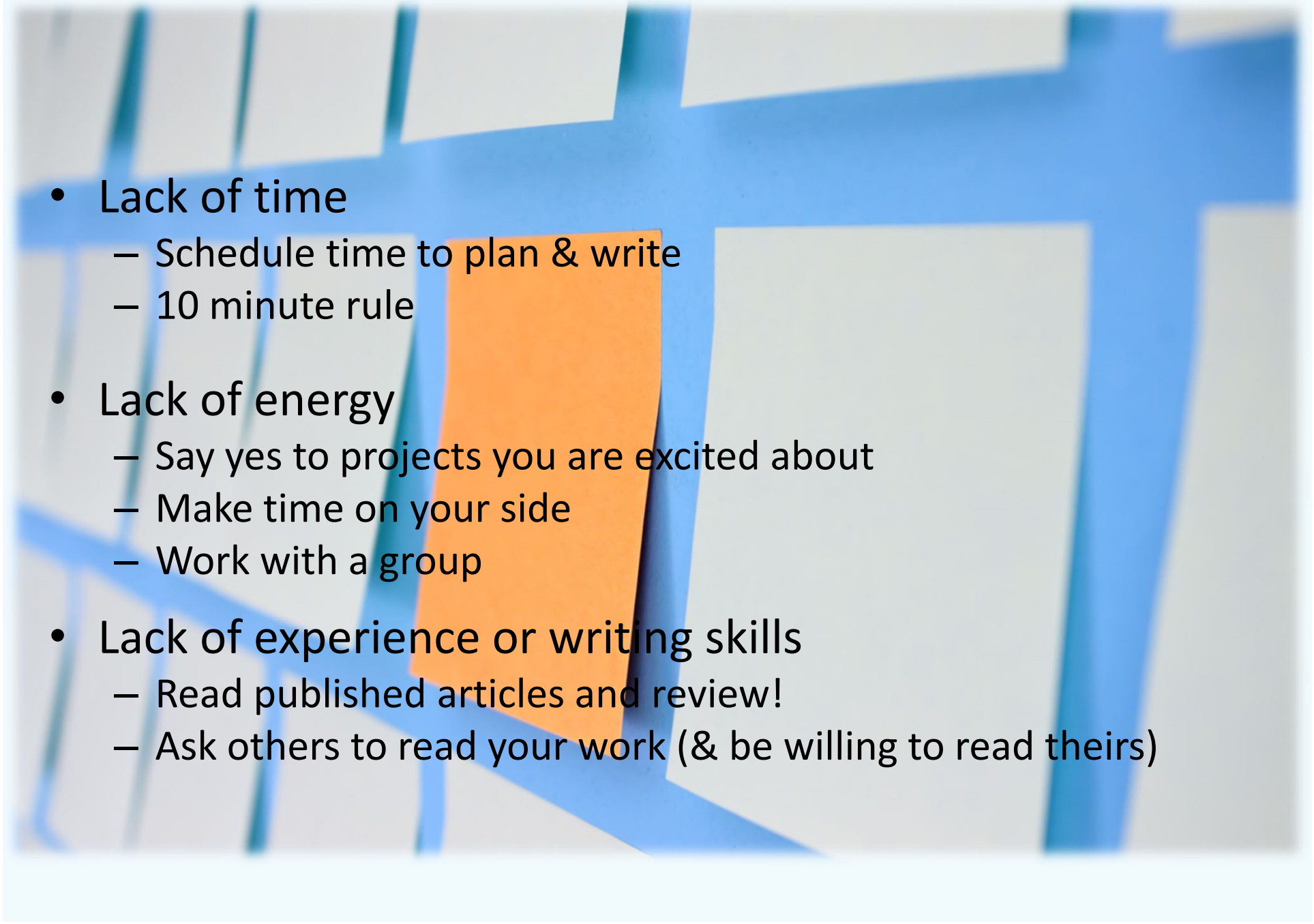
I. List strategies to enhance writing & publishing medical education research

II. Outline critical steps to define a problem, develop a logic argument for the study, and determine study design

III. Publishing tips

Strategies for Writing & Publishing Health Professions Education Research

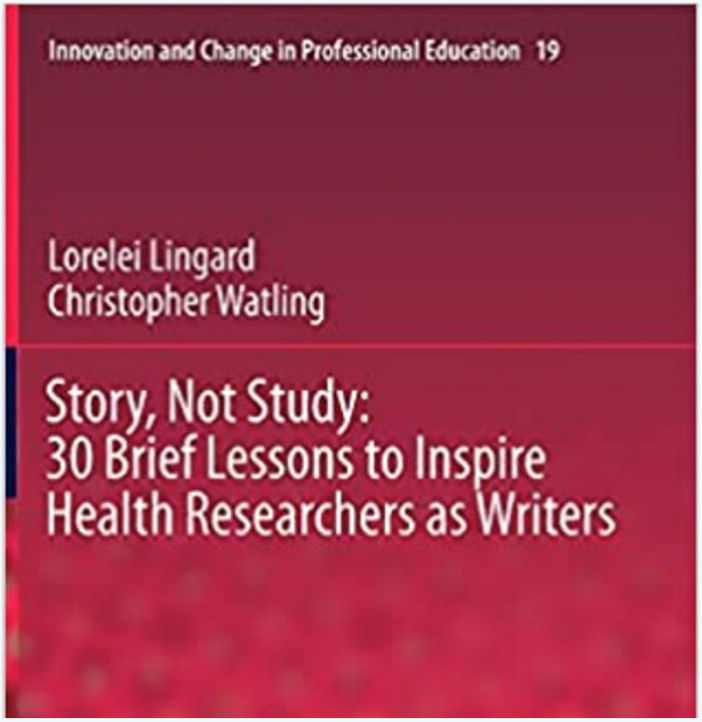
- What is stopping YOU?
  - Lack of time
  - Lack of energy & motivation
  - Limited experience or writing skills
  - Difficulty organizing your thoughts, results, or paper
  - Lacking mentorship
  - Prior rejection



- Lack of time
  - Schedule time to plan & write
  - 10 minute rule
- Lack of energy
  - Say yes to projects you are excited about
  - Make time on your side
  - Work with a group
- Lack of experience or writing skills
  - Read published articles and review!
  - Ask others to read your work (& be willing to read theirs)

Strategies

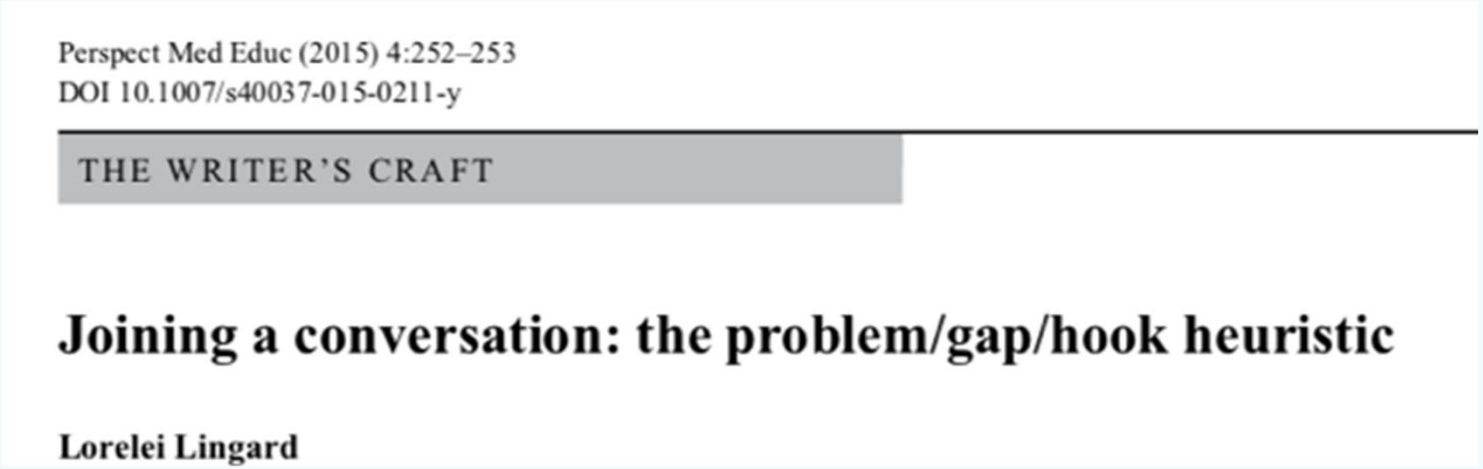
- Difficulty organizing your thoughts, results, paper



	WRITING STEPS	☑ WHEN COMPLETED
1	☐	Re-do literature search; hand-search bibliography of 'best' paper on topic
2	☐	Review stated aims of journal of interest and skim an issue; does project/study fit?
3	☐	Read author guidelines and choose category that best fits article. Follow author guidelines *exactly*.
4	☐	Adhere to word count and #tables/figures. If not possible, explain why in your cover letter to journal.
5	☐ ☐	Set deadlines; don't disappoint your colleagues. If writing is difficult, make outline, jot phrases, organize. Try dictating (voice-recognition software).
6	☐ ☐	If English *is not* your first language, have someone who is review and proof your paper. If English *is* your first language, have someone review and proof your paper.
7	☐	**Title**: usually ≤15 words. Include intervention, type of study, trainee type, setting - if possible - to help reader decide if should read further/click on link
8	☐	**Abstract**: may be only part of paper that is read. Usually introduction, methods, results, conclusions but follow author guidelines. Always include sample size.
9	☐	**Introduction**: 1-2 sentences introduce the topic: why important and relevant to journal's readership. Set your research purpose or hypothesis within a conceptual framework (why should it work?)
10	☐	**Introduction**: 1-2 paragraphs outlining the research or evidence gap that exists. This justifies why your project needs to be done, published, and read. The introduction is not a review of the topic.
11	☐	**Introduction**: end with a sentence (or two if complicated study) that is your study hypothesis (question) or purpose.
12	☐	**Methods**: organize. Relevant sections are: Setting and Participants, Intervention, Outcomes, Analysis, IRB statement (1 sentence only).
13	☐	**Methods**: include all steps so your intervention could be replicated. If long, put in table or box. If still too long, label as appendix (online supplemental material) and keep brief description in paper.
14	☐	**Methods**: describe validity of outcome measures or cite literature. At minimum provide who developed/expertise, any testing/piloting, modifications if 'home grown.'
15	Screenshot	**ods**: describe all planned analyses, in terms that a non-statistical expert (the average reader)

Taking the First Step

- Polish your problem-gap-hook before you start
- Write as you go
- Try dictating with voice-recognition software



Perspect Med Educ (2015) 4:252–253
DOI 10.1007/s40037-015-0211-y

THE WRITER'S CRAFT

Joining a conversation: the problem/gap/hook heuristic

Lorelei Lingard

Problem: Identify a problem that people are talking about

Gap: What is the gap in the current knowledge or thinking about the problem?

Hook: Convince the reader that this gap is important and that it matters.

Leadership is increasingly recognized as an important competency for physicians. At the same time, collaboration is growing as a value and expectation of health care delivery. What has not been explored is the relationship between leadership and collaboration in physicians' practice. The purpose of this study was to explore this relationship by asking 'How do physicians experience leadership and collaboration during their daily team interactions?'

Leadership and collaboration are highly valued and potentially conflicting competencies in medical practice. While there has been attention to leadership and to collaboration individually, little attention has been paid to how they interact. With physicians experiencing increasingly formal expectations that they will lead and collaborate effectively, (e.g., CanMEDS 2015), we require systematic knowledge about how these competencies play out in clinical teams.

Step 2: Conceptual Framework

- A theory, model, or approach for how things work
- Helps establish the question's importance
- Allows others to build on and adopt findings
- Helps you select outcomes and interpret results

Learning Abroad: Residents' Narratives of Clinical Experiences From a Global Health Elective

Stephanie M. Lauden, MD, CTropMed
Sophia Gladding, PhD
Tina Slusher, MD
Cynthia Howard, MD, MPTH
Michael B. Pitt, MD

ABSTRACT

Background While resident participation in global health (GH) rotations has grown, little is known about trainee perceptions of the personal value of these international clinical experiences and their importance to the objectives of GH training.

Objective We sought to better understand the clinical scenarios experienced during international rotations that residents perceived as most meaningful and the frequency of these experiences across scenarios and participating residents.

Methods Using the conceptual framework of Schön's reflection on action, we asked University of Minnesota GH track pediatric and internal medicine–pediatric residents to describe 10 clinical scenarios they found interesting or impactful during their 2016–2017 GH elective. We conducted a qualitative analysis of the deidentified resident narratives and mapped themes to the Accreditation Council for Graduate Medical Education (ACGME) competencies.

Results All eligible residents (n = 13) participated, yielding 129 unique clinical scenarios from 7 countries. We identified 5 thematic groups: (1) addressing challenges in making diagnoses in resource-limited settings; (2) dealing with patient outcomes different from those expected in the United States; (3) encountering and managing diseases in a different *clinical* context; (4) encountering and managing diseases in a different *cultural* context; and (5) reflecting on learning and self-growth. Of the 129 unique clinical scenarios, 30% (n = 39) had not been previously experienced by participants. Across the 5 themes, all ACGME core competencies were addressed.

Conclusions Residents identified meaningful scenarios of their GH experiences that are relevant to the educational and clinical objectives of GH training.

The Use of Experiential Learning Modules to Teach Integrative Medicine Approaches

Candace M. Gragnani, MD, MPH, FAAP
Iljie K. Fitzgerald, MD, MS
Rashmi Mullur, MD

ABSTRACT

Background Complementary, alternative, and integrative medicine (CAIM) are considered important in shifting toward whole person care. Residents remain limited in their understanding of CAIM approaches, preventing effective utilization.

Objective We created modules to expose residents to available CAIM approaches in a Veterans Administration setting, using conceptual frameworks for experience-based learning.

Methods In June 2016, 38 internal medicine residents at the VA Greater Los Angeles Healthcare System were randomized to 45-minute small group sessions. One cohort received an experiential module incorporating 10-minute practices of yoga, biofeedback, and acupressure. The other cohort received a standard lecture focused on CAIM use and outcomes. Participants completed a 6-question quiz to measure their understanding of CAIM use and an 8-question survey to assess their satisfaction of teaching, exposure to CAIM, and anticipated practice change. Referrals to CAIM modalities before and after the learning modules were counted to assess practice change.

Results All 38 residents completed the study, with 25 residents completing the experiential learning modules and 13 completing the standard lectures. Initial postquiz scores were similar. Five months postintervention, residents who participated in experiential modules were more likely to refer patients to CAIM modalities than those who received standard lectures (3.4 per month versus 0.6 per month, $P = .018$).

Conclusions This study highlights the advantages of experiential learning of CAIM approaches for residents. It reinforces existing literature suggesting that physicians who experience CAIM are more likely to incorporate these approaches into practice.

Step 3: Study Design

NEED TO CREATE A CURRICULUM

WANT TO UNDERSTAND PERCEPTIONS

UNDERSTAND A LEARNING GAP

PILOT AN INTERVENTION

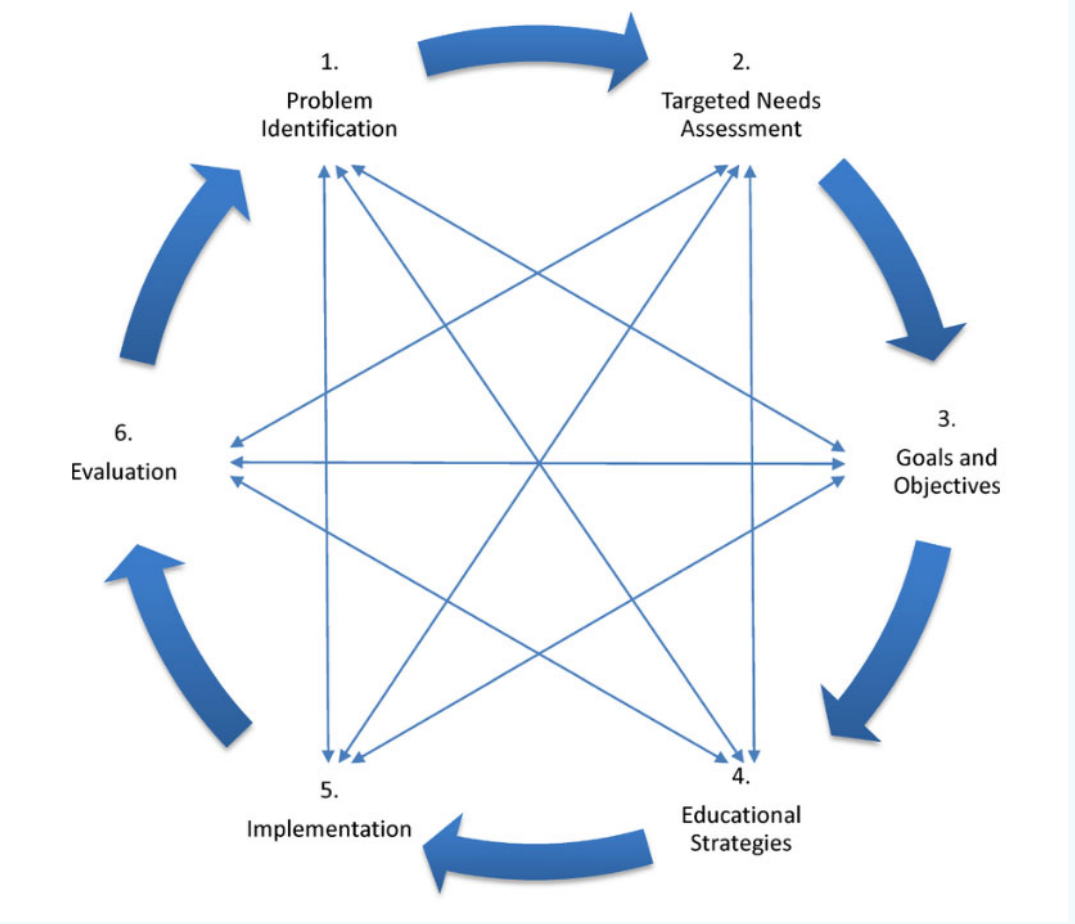
APPROACH A PROBLEM THROUGH A QI LENS

SUMMARIZE WHAT IS KNOWN IN THE LITERATURE

UNDERSTAND A PHENOMENON

MEASURE THE IMPACT OF AN INTERVENTION

Curriculum development



Survey Study

REWARDS TRUST COST

Dillman, D. The Tailored Design Method of Survey Administration.

Needs assessment

Identify needs of trainees, faculty, or other educational gaps

May precede an intervention study – national or large region best

Huge risk for research bias as everything potentially w/ unmet needs

Depends on questions asked & who chooses to respond

Single program needs assessment not generalizable

Consider qualitative study, generate hypotheses for further evaluation

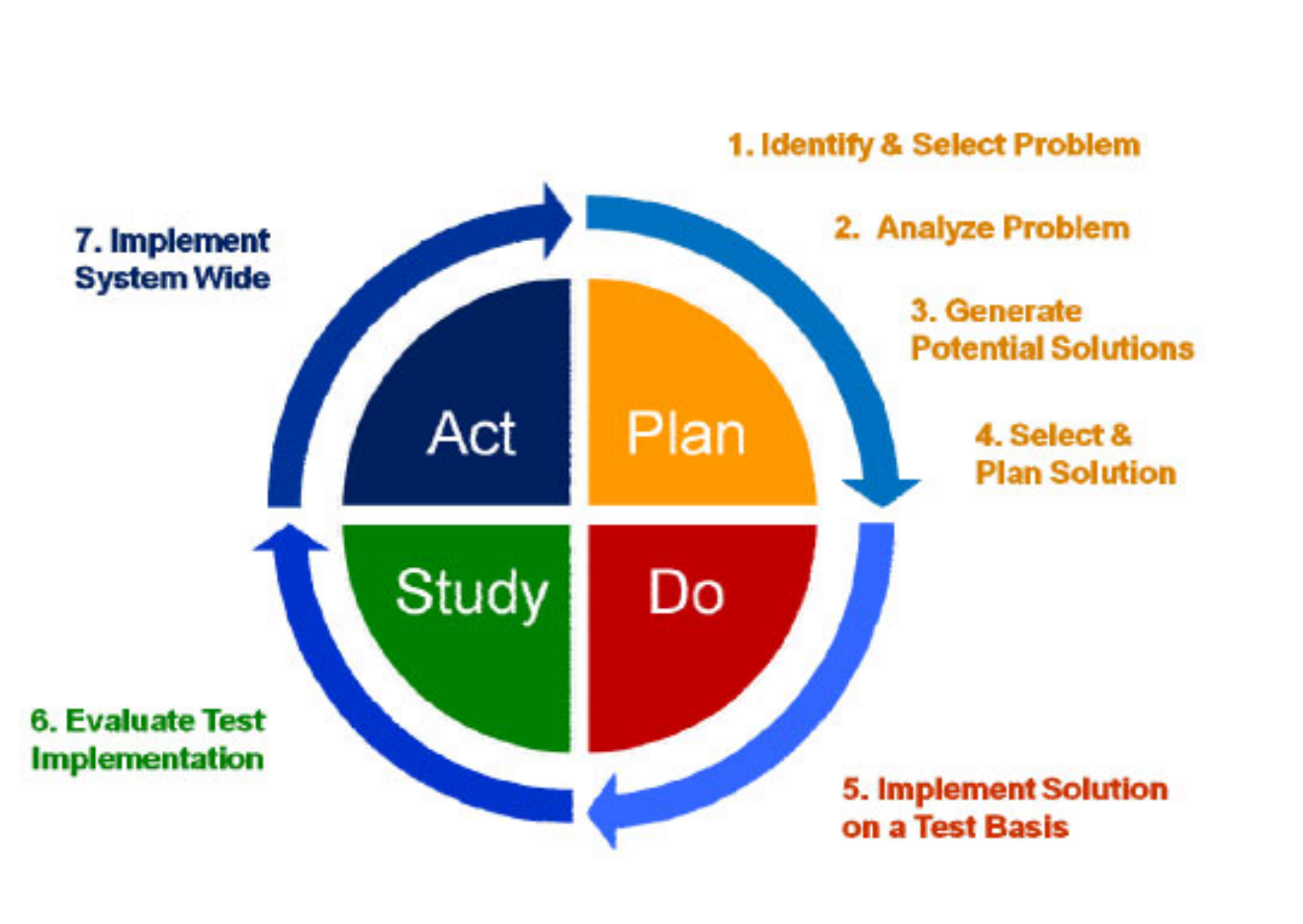
Innovation report

Pilot implementation of a curriculum or innovation

Should be novel, address a pressing novel, be applicable to others

Need: materials, feasibility, acceptability, preliminary outcomes

Quality improvement report



Instrument development study:
it's all about validity evidence

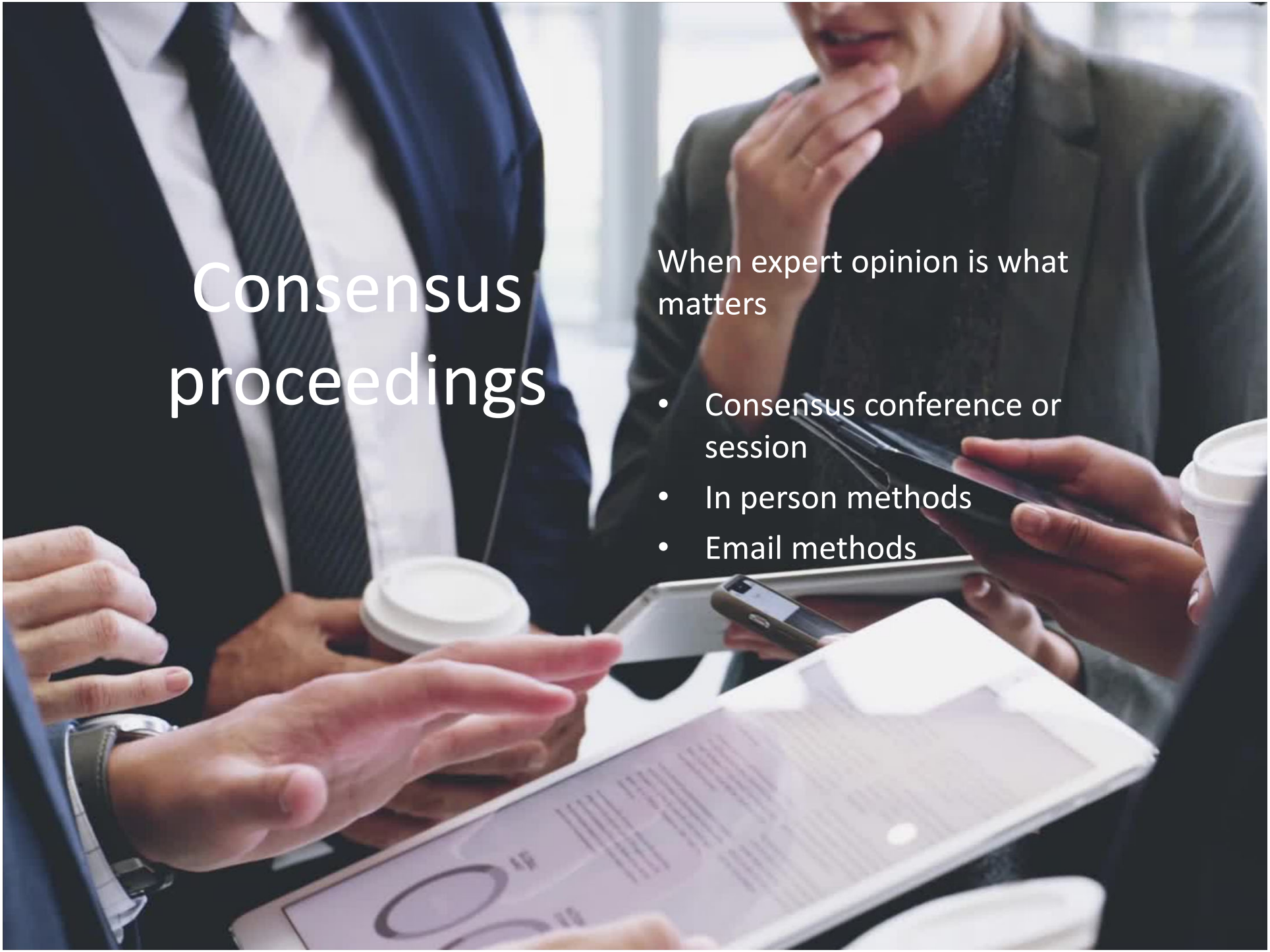
Content

Response process

Internal structure

Relation to other variable

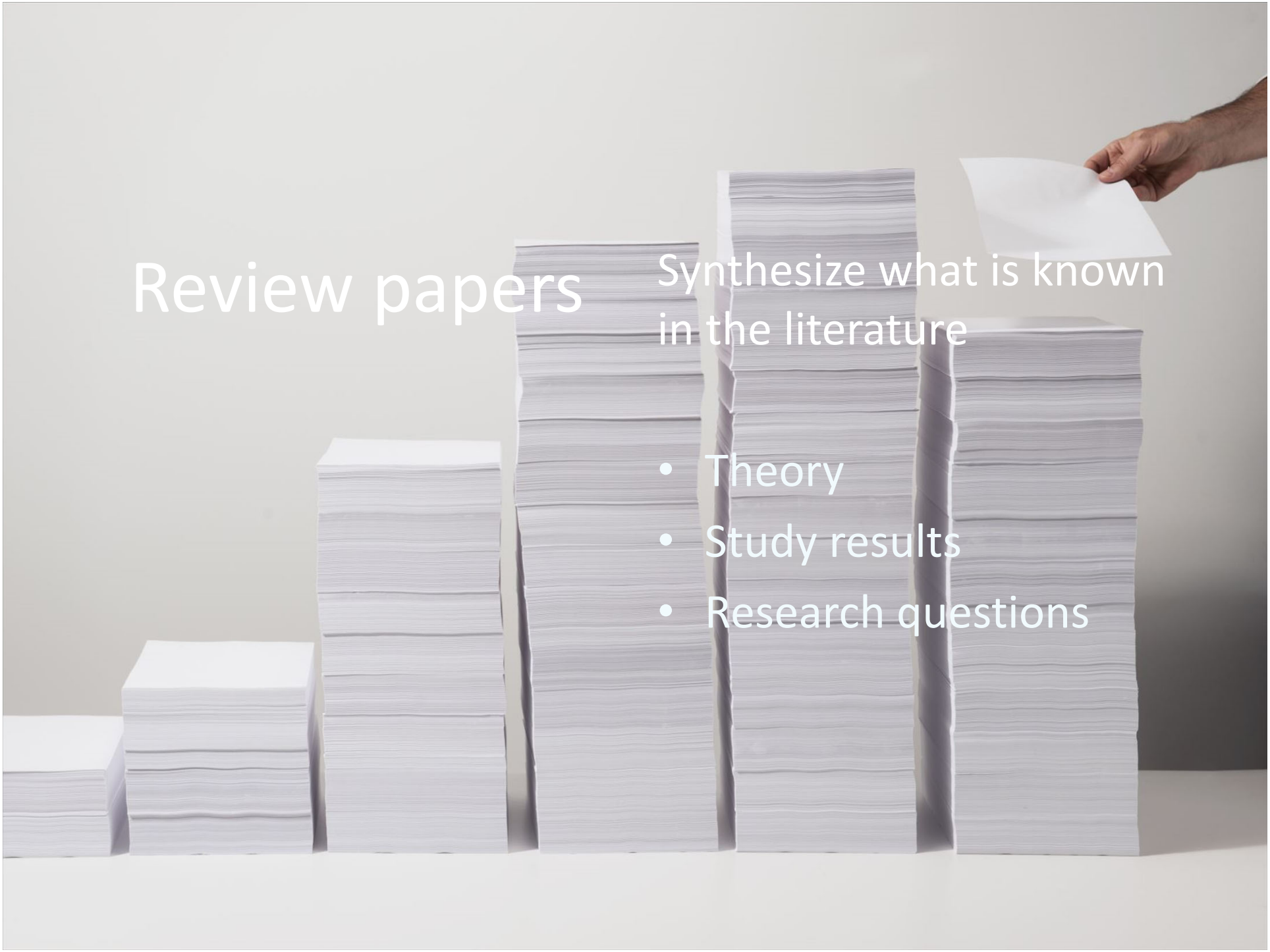
Consequences



Consensus proceedings

When expert opinion is what matters

- Consensus conference or session
- In person methods
- Email methods


Review papers
Synthesize what is known in the literature
• Theory
• Study results
• Research questions

JGME Literature Review Series

This series provides an overview of 8 influential approaches to knowledge synthesis: Systematic Reviews, Realist Reviews, Narrative Reviews, Scoping Reviews, State-of-the-Art, Critical Reviews, Meta-ethnographic Reviews, and Integrative Reviews. For each literature review, 2 articles are provided: (1) an overview of the review type with background information on philosophical foundations, purposes, and expected products for readers and researches, and (2) a short article with steps that outline the "nuts and bolts" of this type of review.

Qualitative and Quantitative Methods

Quantitative: ***how much?***

Will ratings of residents by students improve for residents who undergo a new teaching rotation?

Qualitative: ***why?***

Why do residents report the same amount of stress when working fewer hours?

Study Designs Handout

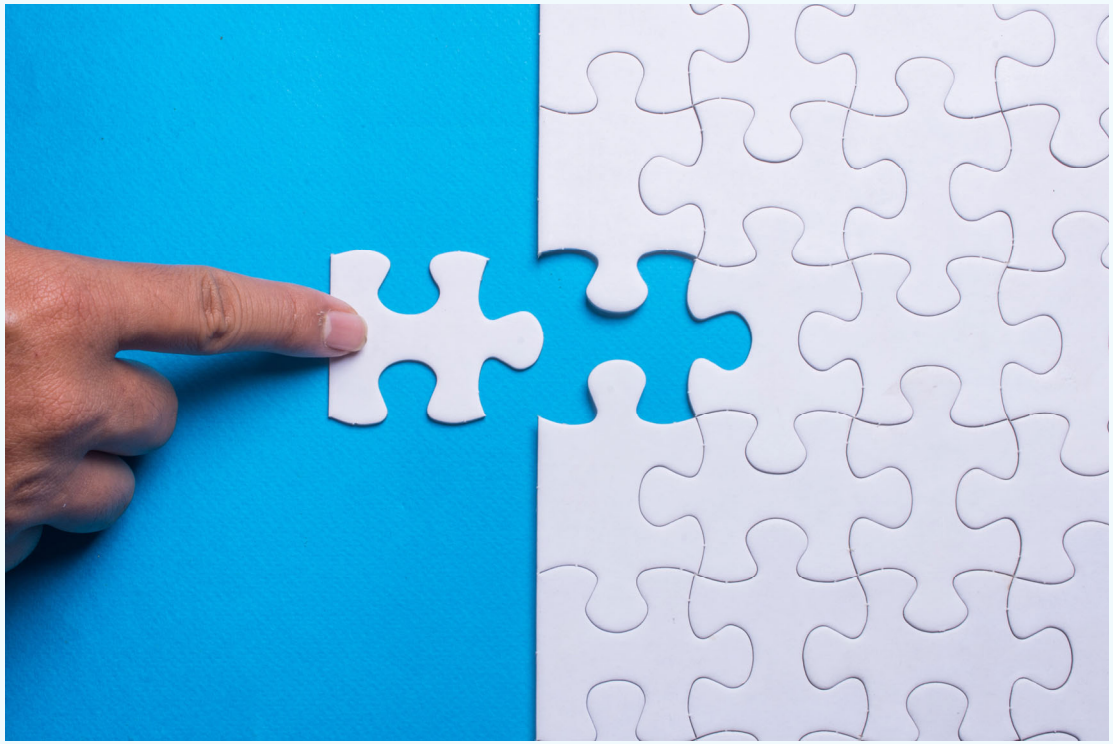
Question/Problem/Theory	Study Design
Need to create a curriculum	Curriculum development
Want to understand perceptions	Survey study
Want to describe learning gap	Needs assessment
Have developed and piloted an innovation in one center	Innovation report
Approached an educational problem through a QI lens	Quality Improvement Report
Develop and test a new instrument	Instrument development study
Understand best practices when literature is not conclusive, and expert opinion exists	Consensus proceedings
Summarize what is known from the literature	Review papers
Understand a phenomenon through the lived experiences of those who experience it	Qualitative research
Measure the impact of an intervention, test a hypothesis, evaluate associations between exposure and outcome	Quantitative research


Tips to increase favorable consideration by academic journals

Strategic selection of target journal

Optimize Chance of Acceptance

How is quality determined in HPE research?



Quality =

- Clear, pre-determined hypothesis or question
- Methods appropriate to the question
- Valid measurements of relevant outcomes
- Appropriate analysis
- Significant results
  - Think *impact on education*, not just statistical
- Clear, organized writing
- Thoughtful self-critique

Your Manuscript: IMRD

Introduction

- Why important & relevant to audience of this journal
- Brief literature review – describe evidence gap
- Explicit research hypothesis: your question or study aim

Methods

- Settings & participants, intervention, outcomes, analysis, IRB

Results – data in tables/figures or text, not both

Discussion

- Highlight what you found
- Compare findings to others', discuss limitations

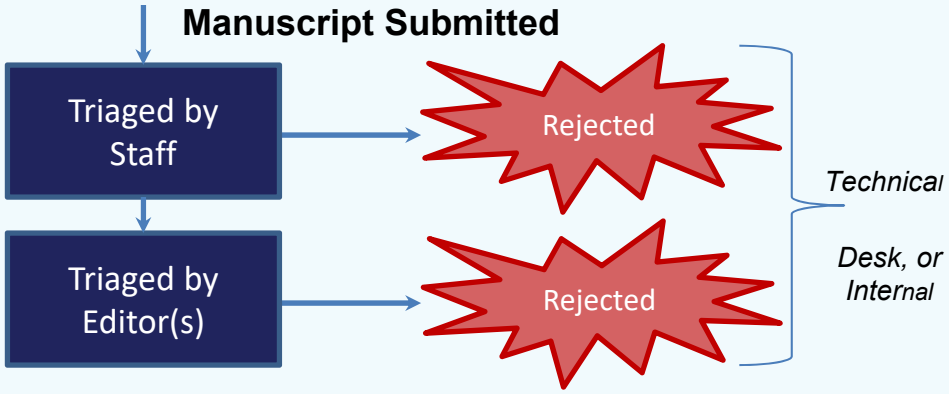
Conclusions

- Logical, conservative, briefly summarize your findings

References – up to date, complete – not a review

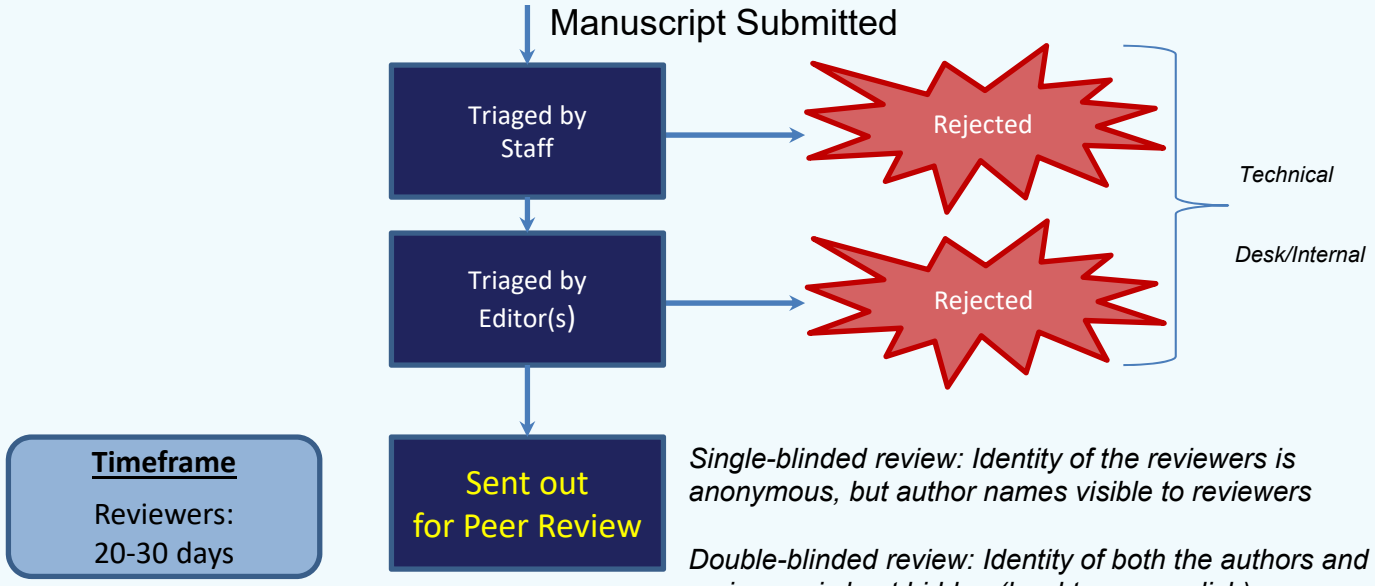
Path of a Manuscript

Manuscript Review Process

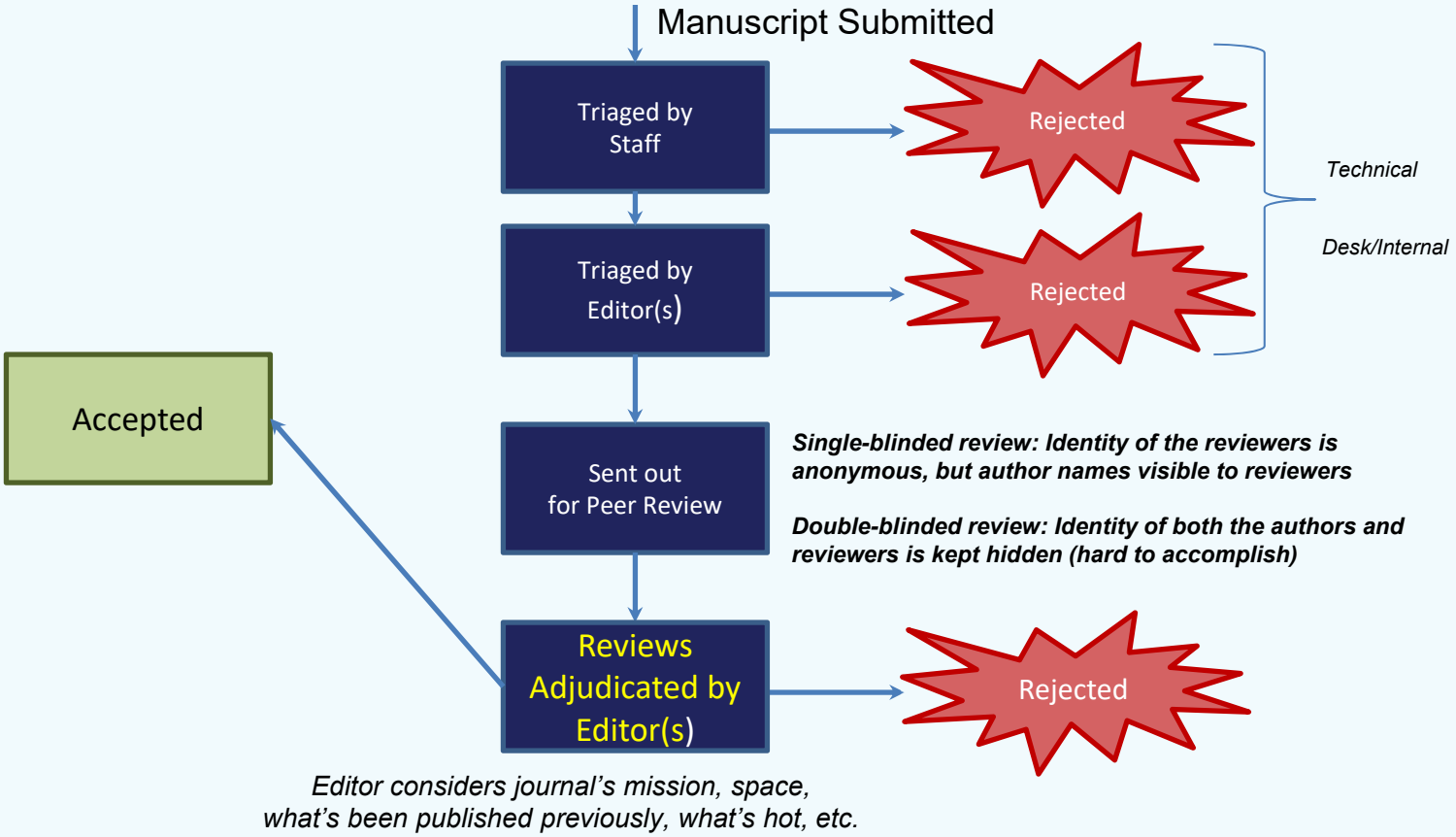


Editor also considers journal's mission, space, what's been published previously, what's hot, etc.

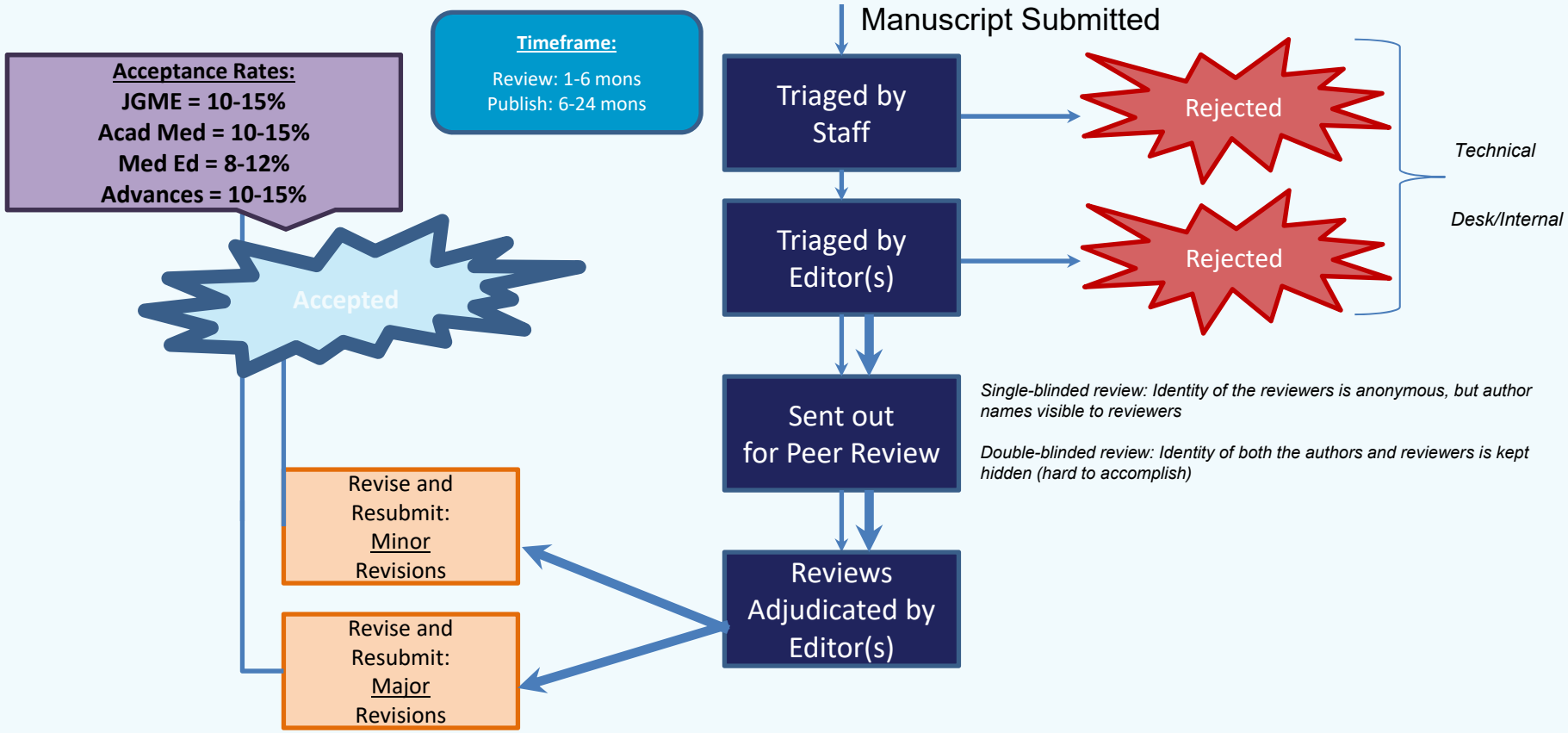
Manuscript Review Process



Manuscript Review Process

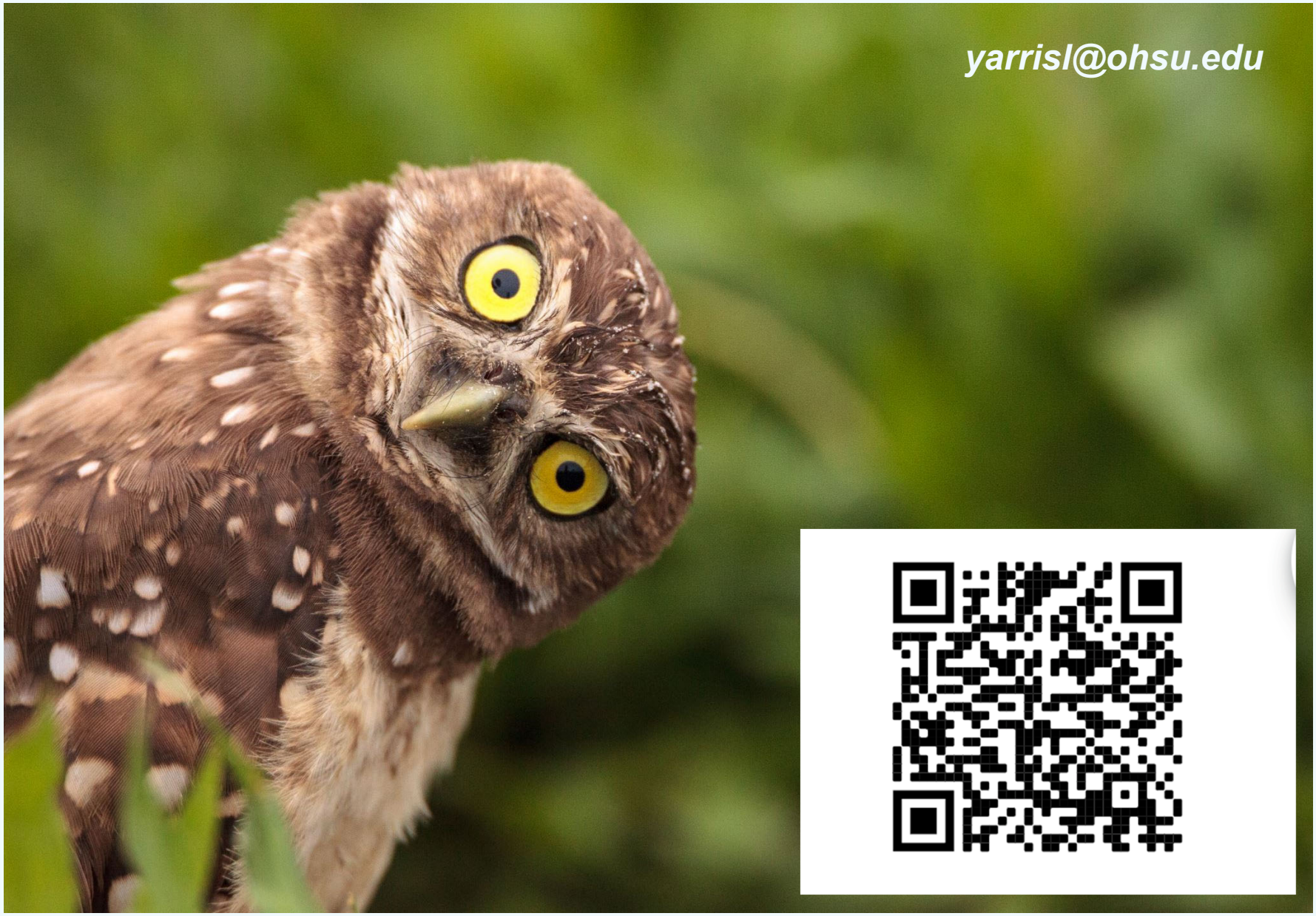


Generic Manuscript Review Process



Author Response Letters that get to YES

From	Critique	Our Response	Pg & Line #
Editor			
E 1.1	**Important Topic - Innovative**	Thank you for opportunity to revise the manuscript to further strengthen the impact of this report. We have added a number of details based on reviewer suggestions and have delineated them below.	NA
E 1.2	**Length**	Shortened by 1,000 words	Pg 2 L 250
Reviewer #1			
R1.1	**Scales**	We appreciate Reviewer #2's perspective.. However, literature…	NA
R1.2	**Stats**		Pg 5 L 951
Reviewer #2			
R2.1	**Innovative but**	Editor in E.1 noted (go with E.1)	
R2.1	**Literature**		Pg 2 L 150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