



DOWNSTATE
HEALTH SCIENCES UNIVERSITY

iNSPIRe
Clinical Science Program
for Independent Research

Manuscript Writing Workshop

iNSPIRe Initiative
Department of Surgery

11/08/2022

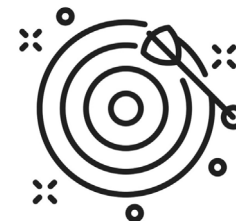
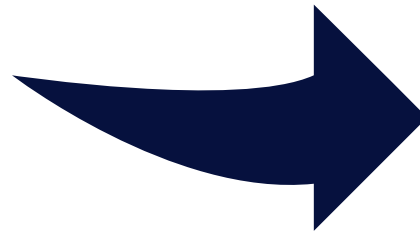
Scientific writing

- Study impact heavily dependent on ability to orient and describe findings

Thoughtful,
methodologically
strong work

Lower quality work

Communication



Format

- Introduction
- Methods
- Results
- Discussion

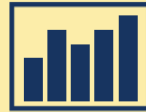
It's a Story, Not a Study: Writing an Effective Research Paper

Lorelei Lingard, PhD, professor, Department of Medicine, and Chris Watling, MD, PhD, associate professor, Department of Clinical Neurological Sciences, Schulich School of Medicine & Dentistry, Western University

Advice abounds for education researchers hoping to publish their work.¹⁻³ Authors are commonly told to include a clear question and purpose statement, at least one theoretical frame for the work, sufficiently detailed methods, balanced reporting of results, thoughtful limitations, and conclusions appropriate to the research design.

Helpful though such advice is, we think it misses the fundamental point. Because what separates a mediocre research paper from a great research paper is not such bits and pieces. It is something much more essential.

A decent research paper reports a study.



But a great research paper tells a story.



Association for Academic Surgery

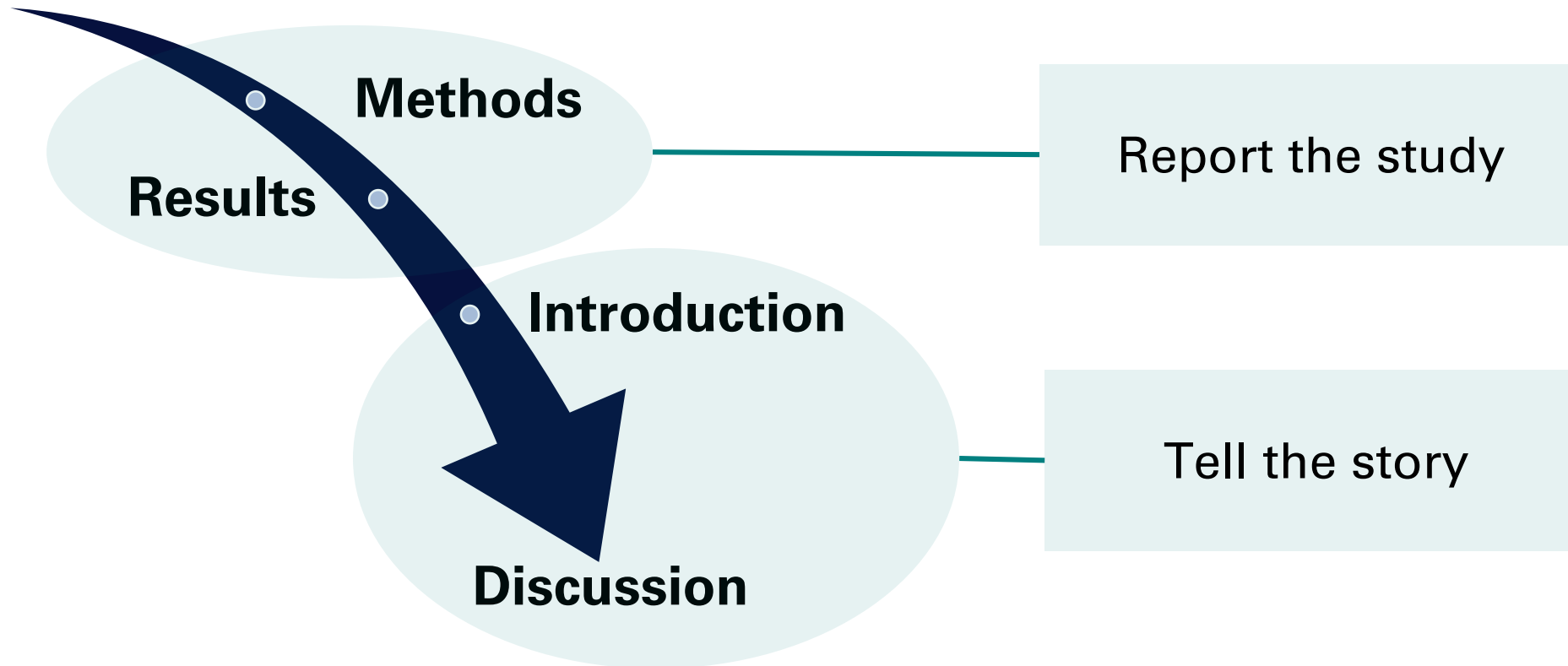
The Art and Science of Publishing: Reflections from Editors of Surgery Journals.

Association for Academic Surgery 2013 Presidential Session

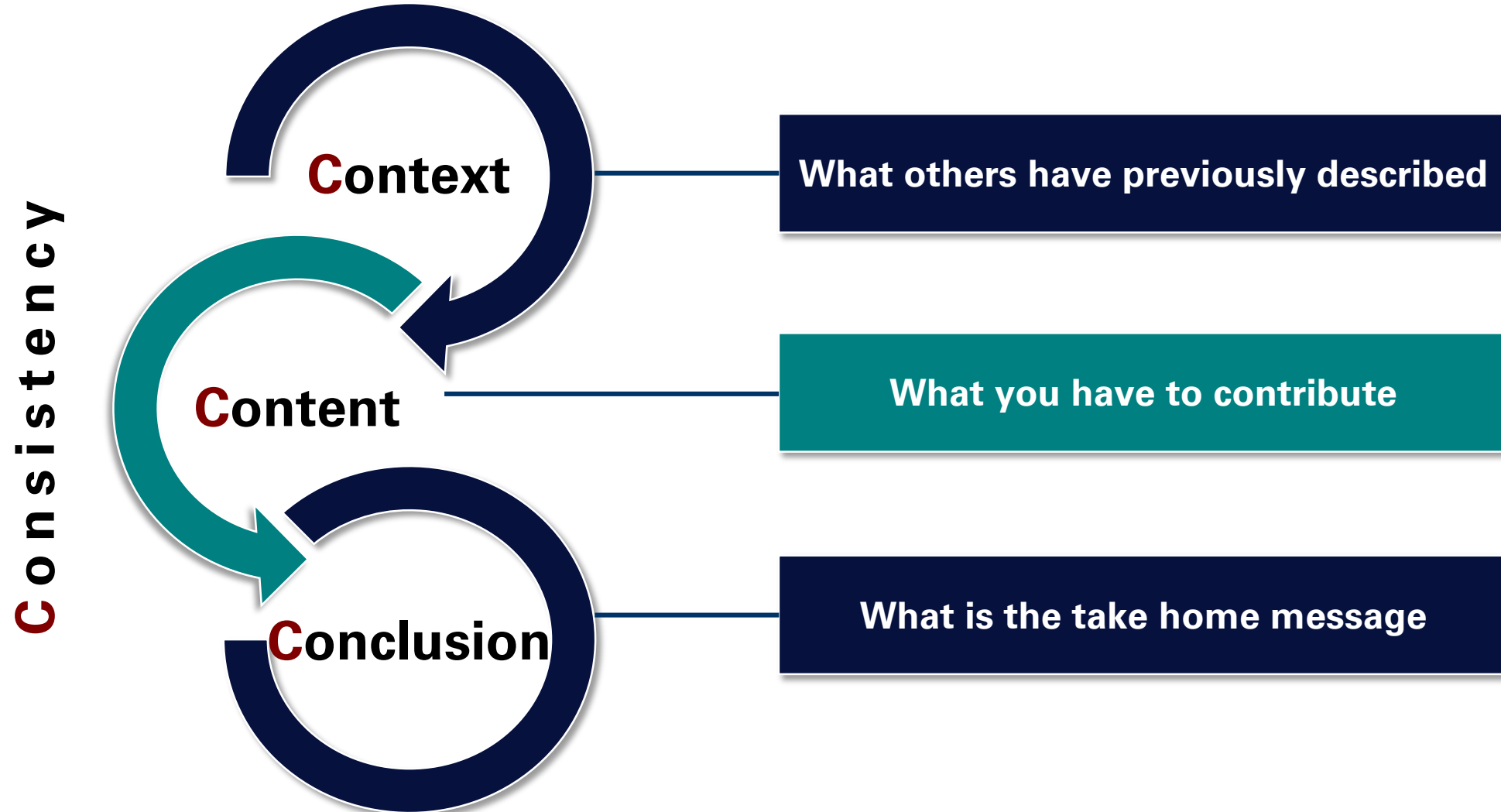
Melina R. Kibbe, MD,^{a,*} Michael G. Sarr, MD,^b Edward H. Livingston, MD,^c
Julie A. Freischlag, MD,^d Keith D. Lillemoe, MD,^e and David W. McFadden, MD^f

In practice

Tables/Figures



Development



Housekeeping

- Create one folder for manuscript related items
- Separate files in the folder for:
 - Manuscript
 - Tables (cite in order of appearance)
 - Figures (cite in order of appearance)
 - Supplement

Software recommendations

Manuscript writing: **Scrivener**
Reference manager: **Endnote**

Tables/Figures

- Dependent on study and story
- Key points:
 - Do not replicate information in tables/figures
 - Unless explaining or highlighting important facts
 - Table 1 is essential
 - Describe cohort and identify between-group differences

Methods

- Study design, data source, regulatory approvals (1st paragraph)
 - Eligibility criteria, sample size, power analysis
- Outcomes/exposures (2nd/3rd paragraphs)
 - Definitions are critical
- Statistical methods (4th paragraph)
 - Include software information

Results

- Descriptive data (1st paragraph)
- Primary outcome/model data (2nd/3rd paragraph)
- Sensitivity/bias analysis; effect modifiers (4th/5th paragraphs)

Introduction

- Current state of affairs (1st paragraph)
 - Why does the problem matter?
- Set a more focused stage for objective (2nd paragraph)
 - What is the gap in knowledge?
- Objective/hypothesis (3rd paragraph)



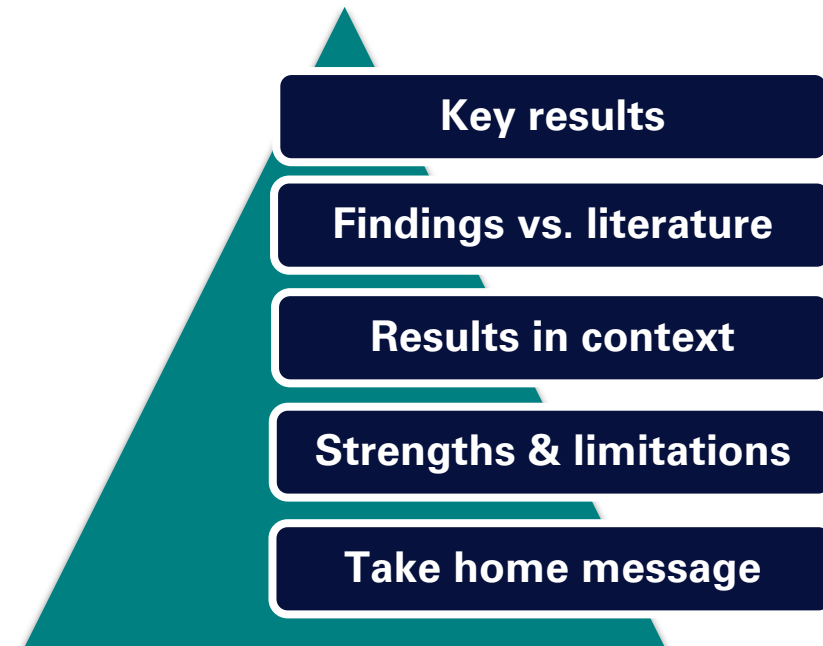
Attention grabber

Build anticipation

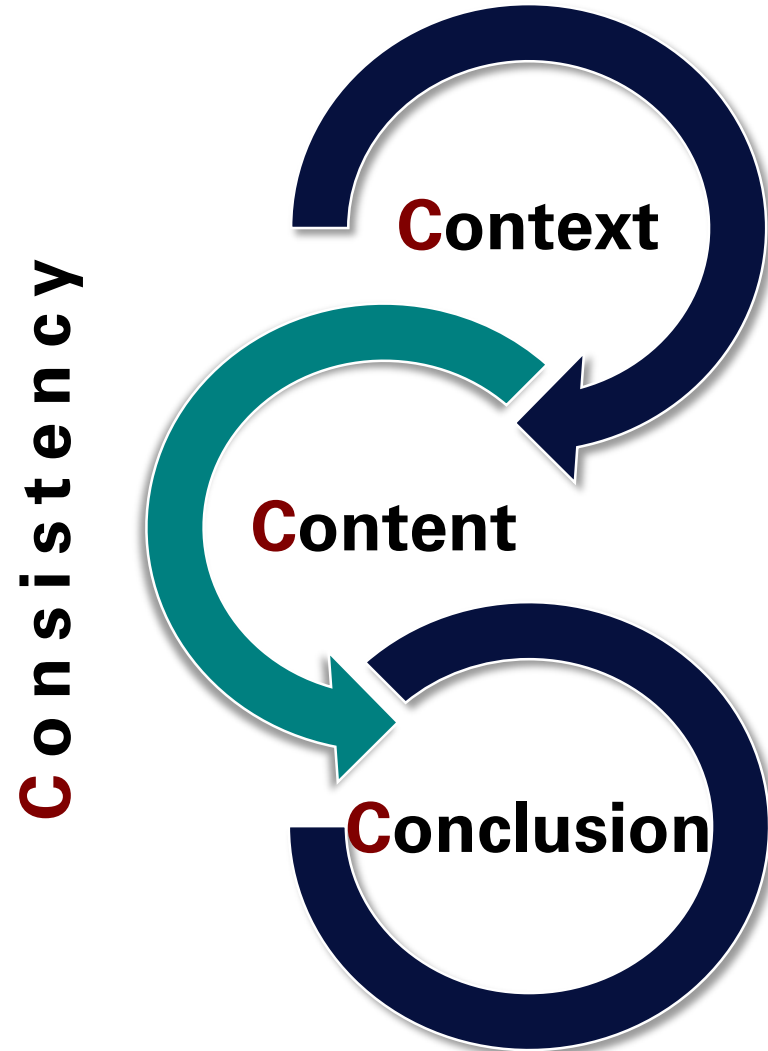
Call to action

Discussion

- Summarize findings while restating objectives (1st paragraph)
- Orient findings in context of intro (2nd/3rd/4th paragraphs)
- Limitations (5th paragraph)
- Conclusions (6th paragraph)
 - Future directions



Final notes



- If difficult to understand writing, readers will like content less
- Nifty composition tricks:
 - 2-3-1 rule
 - 1 idea for 1 sentence
 - Eliminate clutter
 - Read aloud
- Apply to daily writing
 - Practice refines and makes permanent

References

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