



JOHNS HOPKINS
SCHOOL *of* MEDICINE

Bootcamp Writing 2: Audience Awareness & Essential Elements

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Upcoming Welch sessions

- Literature searching & reviews
 - Sep 18: **PubMed** Intro: Getting Started at Johns Hopkins
 - Oct 1: **PubMed**: Search Like a Pro
 - Oct 9: **Literature Databases** Beyond PubMed
 - Oct 23: Intro to **Covidence**
- Data handling
 - Sep 23: Protecting Human Subject **Data Privacy**: an Intro
 - Sep 25: Research Data Lifecycle: **Data Documentation**
- Reference management
 - Sep 25: **EndNote** Intro
 - Oct 13: **Refworks** Basics

Today's objectives

1

Define your audiences for any piece of writing

2

Identify the elements of excellent academic writing

Orthopaedic journals

As of Sep 9, 2025, there were 336 orthopaedic/sports medicine journals

That's 17 more than in March

High rejection rates

The Journal of *Shoulder & Elbow Surgery* receives >1700 submissions per year and rejects 80%

Similar rate for *JBJS*

Am J Sports Med accepts only 12% to 14%

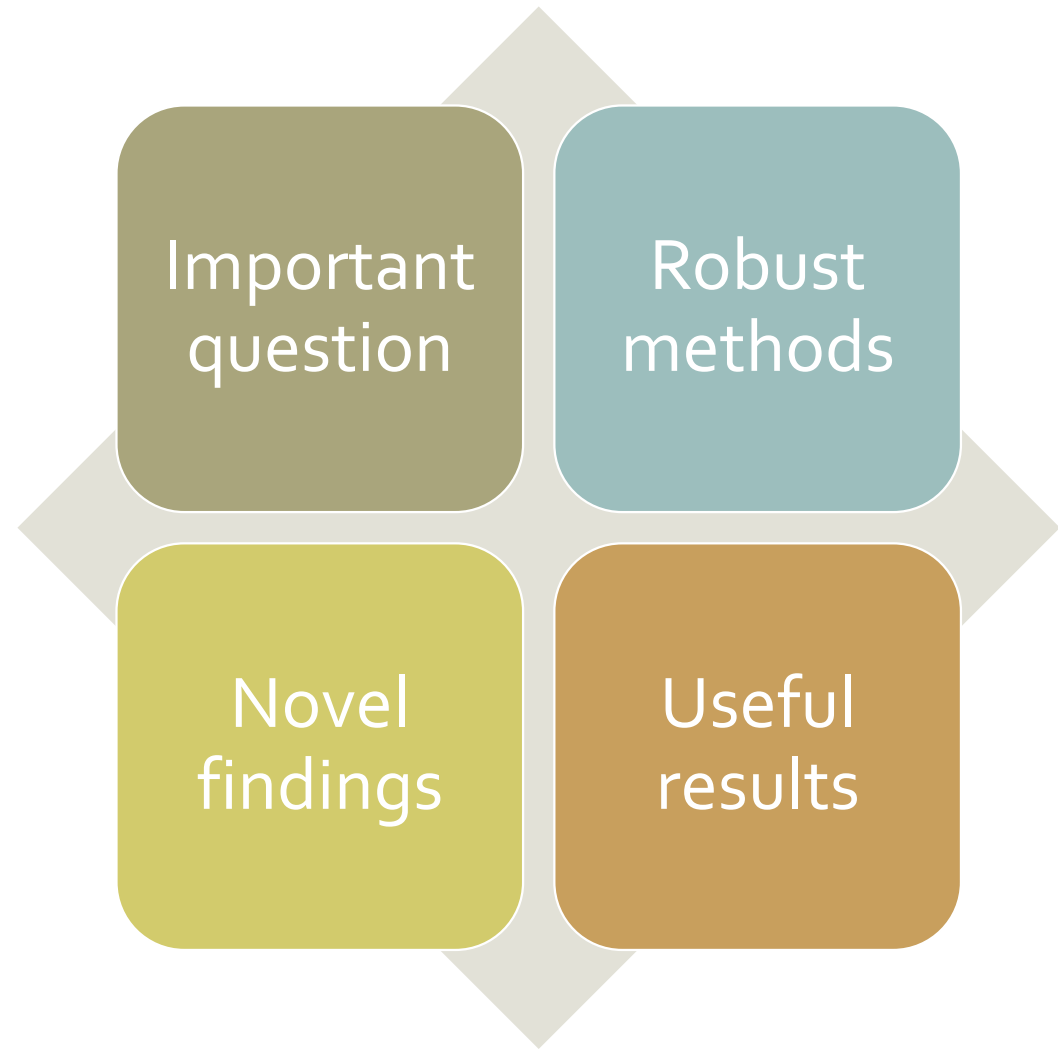
Keys to acceptance

Great content

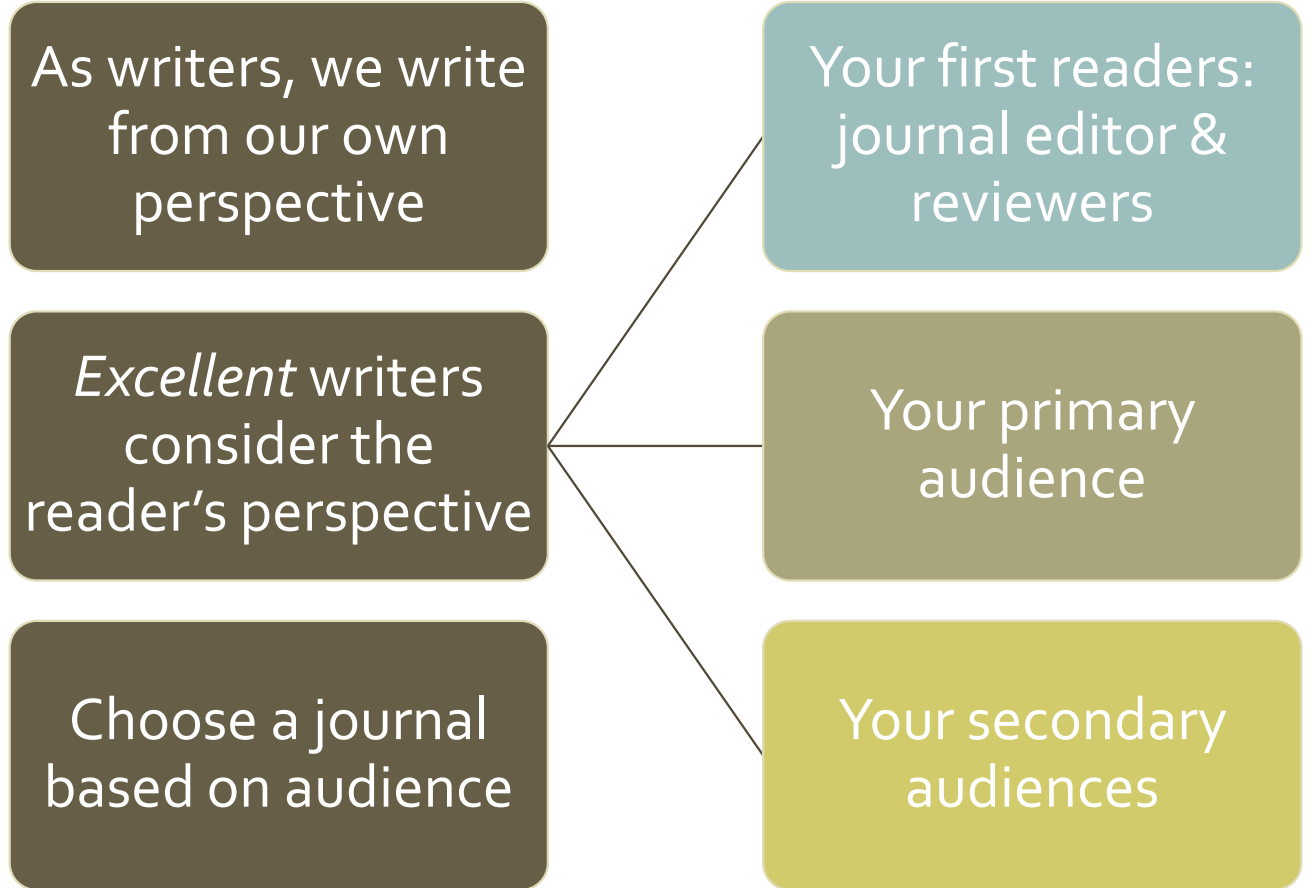
Audience awareness

Skillful writing

Great content



Audience awareness: a perspective shift



A high-angle, black and white photograph of a large crowd of people, seen from behind. The crowd is dense and fills the entire background of the slide. The people are mostly seen from the back of their heads and shoulders, looking towards the front. The image is partially obscured by a dark olive green rectangular overlay on the left side, which contains the text.

Identify your
audiences

Your first audience

The journal editor & reviewers

- How does your article fit the journal's scope?
- Why does your research question matter?
- Where is the novelty in your methods/results?
- What is the quality of the writing?

Your primary
audience

Experts in your field

- What do they know?
- What do they not know?
- What do they need?

Secondary audiences

- How many can you identify?
- How are their needs different?
- How can you address their interests/level of knowledge?

Secondary audiences

- Basic scientists (for clinical articles)
- Clinicians (for basic science articles)
- Healthcare administrators
- Policymakers
- Economists
- **Patients & their families**
- Others?

Audience considerations



What do they know already?



What do they not know?



Why should they care about your topic?



How can they apply your findings?

Audience considerations

For secondary audiences

- How are their needs different from those of the primary audience?
- How can you address their interests & level of knowledge?
- How can you respect patients in your language choices?

Ask, how can I help the reader?

Original

"In the last decade, a mean of 684,268 knee arthroplasty cases were performed annually."

Specify: Readers in the future will thank you

Simplify: Use the more common term

Round: Readers comprehend 2 significant digits

Revision

"From 2014 to 2024, nearly 700,000 knee replacements were performed annually in the US."

Contextualize: Setting matters

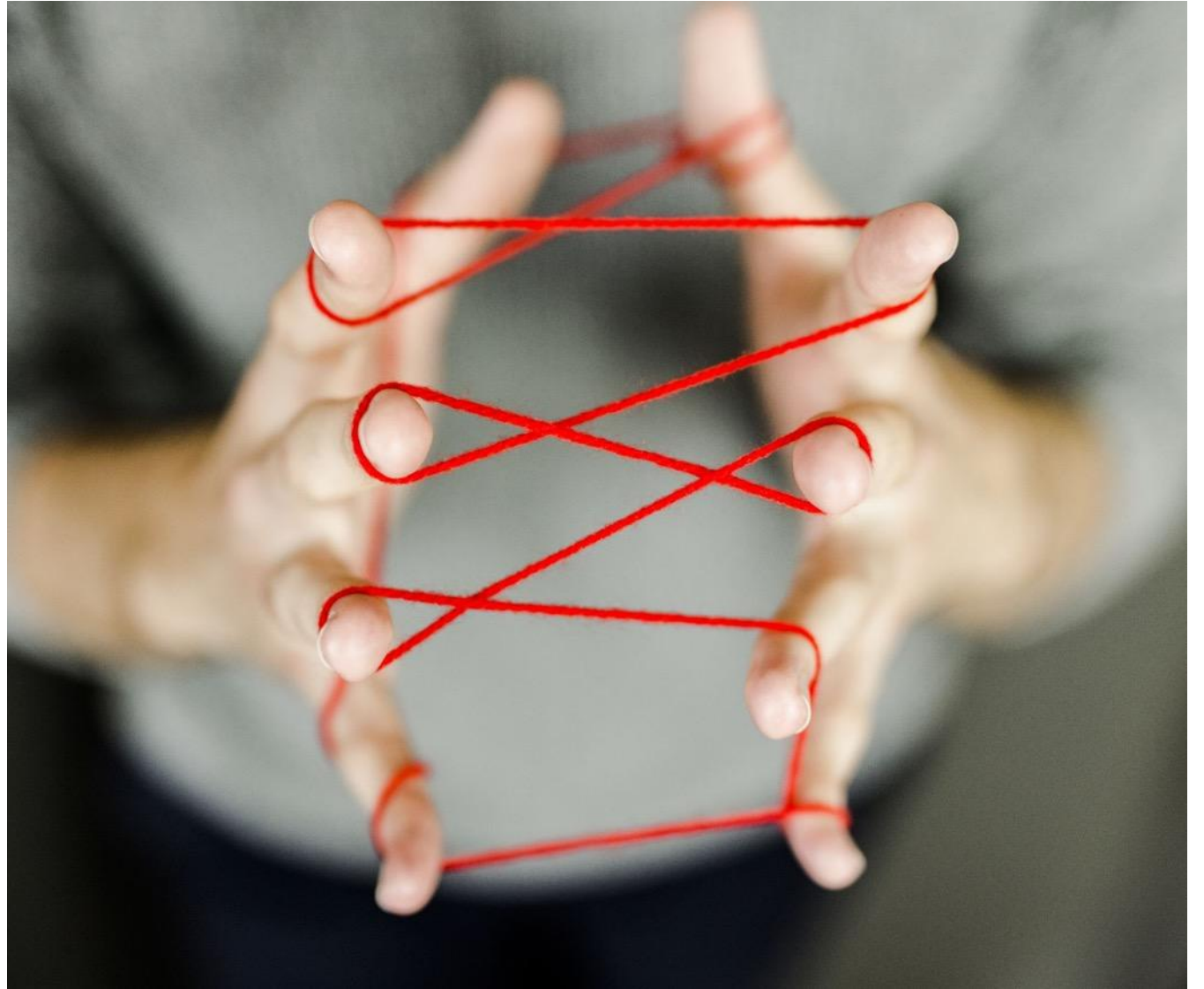
Ask, how can I respect patients?

Language choices

- | | | |
|--------------------------|----|--------------------------|
| • “obese patients” | vs | “patients with obesity” |
| • “diabetics” | vs | “patients with diabetes” |
| • “study subjects” | vs | “research participants” |
| • “Case 1” | vs | “Patient 1” |
| • “a 23-year-old female” | vs | “a 23-year-old woman” |

In general, put the patient ***before*** the treatment/condition

Handling
complexity





Scientific research is complex



You need to communicate that complexity to your audiences



How can you best handle complexity in your writing?

Handling
complexity

Handling complexity

- Structure thoughtfully
- Incorporate subheadings
- Choose simple words
- Guide the readers
- Avoid surprises
- Vary sentence length



The Five Cs

Essential for excellent writing of any genre

Building blocks

- Clarity
- Cohesion
- Conciseness
- Consistency
- Conviction



Clarity

Every sentence is completely clear to the reader the first time it's read

Keys to clarity

Use precise language

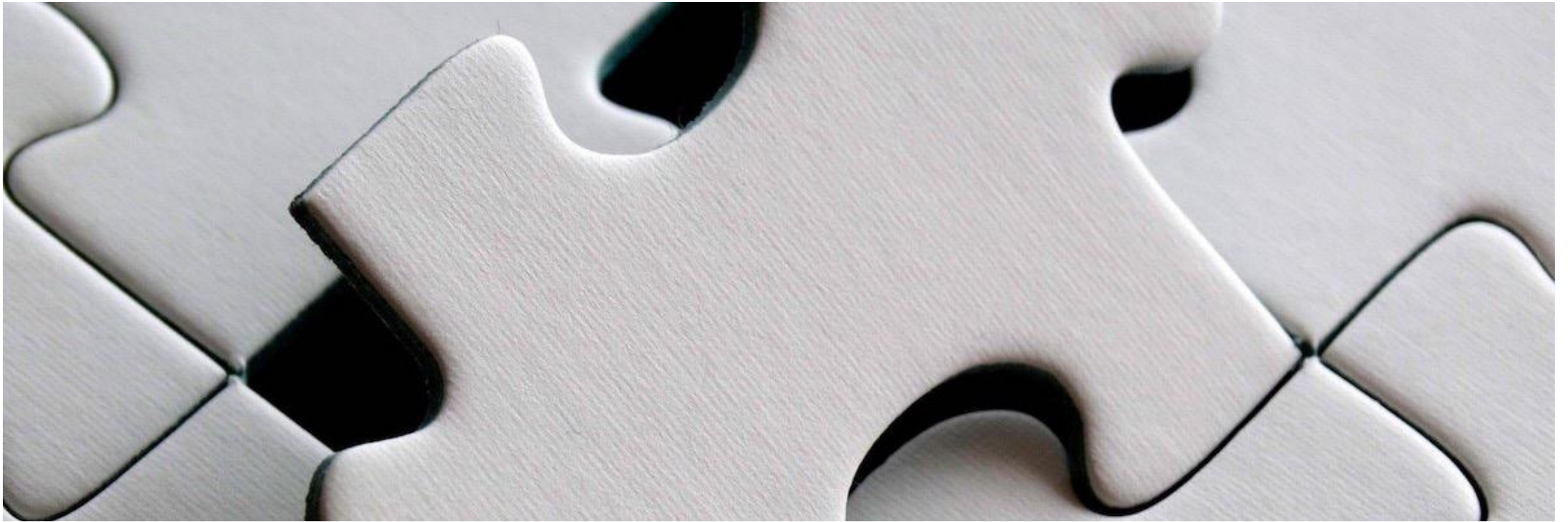
Complete comparisons

Avoid jargon when possible

Shorten sentences

Use simple terms when available





Cohesion

The parts of your manuscript “stick together” in a logical way

Keys to cohesion

Ideas flow logically from one to the next

Extraneous material is eliminated

Nothing appears in the Discussion that could not have been anticipated after reading the Introduction





Consistency

Elements of the manuscript are compatible, parallel

Keys to consistency

Use the same terms for the same items (avoid synonyms)

Answer your questions in the order you asked them

Use parallel structure in your text, tables, and figures





Conciseness

Saying much with few words

Keys to conciseness

Eliminate unnecessary words

Use active (vs passive) voice when appropriate

("The samples were analyzed by the research team" vs "We analyzed the samples")



“I have made this
longer than usual
because I have
not had time to
make it shorter.”

--Blaise Pascal, 1657





Conviction

Persuading the reader that your study matters

Keys to conviction

Relate your findings to human health

Focus on the utility of your findings

Use language that conveys your passion (with appropriate tone)





Some final thoughts

Your goals as an author

Your goals as an author

Explain what you did,

why you did it,

why it matters, and

how the findings can be used

Your career goals

Publish your work

build your reputation

secure funding

be promoted

3 Tips from Amit Jain

Amit Jain, MD, MBA

- Assoc. Prof. Orthopaedic Surgery
- Hopkins resident 2012-2017
- 92 publications during residency*
 - 83 original
 - 7 reviews
 - 1 case report
 - 1 book chapter

*26 as first author



3 Tips from Amit Jain

1. **Pitfall:** “When thinking of developing a project, have a clear hypothesis and research question. Don’t just go “fishing” without the end in mind. This leads to wasted effort and dead projects.”
2. **Strategy:** “Have a weekly dedicated time to move projects forward. Don’t sit on them for months. Even if it is half an hour a week. That will compound your productivity over time.”
3. **Habits:** “Master PubMed. Learn to use TIAB, MeSH terms, etc. Write the results and methods first, then intro and discussion. Results is the meat of your paper.”



Questions for me?

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