

Tell it to me straight: Writing a Lay Abstract

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Lay summaries are a key skill used in:

Grant applications

Ethics submissions

Executive summaries

Participant engagement

Journal websites

Patient support websites and newsletters

F / GB USA MEX

**ONE SIZE
DOES NOT
FIT ALL**



Von links bügeln/ Iron inside out/
repasser sur l'envers / 只熨反面

Lay summaries share core qualities

Plain language

Key details only – *may omit some rigor markers*

May not be chronological (or *IMRAD*)

BLAM [bottom line actionable message]

Active voice

Positive phrasing (what is done > what is not done)

‘Patient’ education

Health teaching or ‘patient’ education is information that teaches individuals about a particular health condition, disease, or health matter that allows the individual to **make informed decisions** and may provide information about **actionable outcomes** that can influence health.

Best practice recommendations for patient education materials

Maximize Usability and Comprehensibility

- Reading level of approximately grade 4-5

- Use active voice

- Use of graphics/line drawings

- Interactive & reflect patient needs (*supports actionability*)

- Consider document design: font, layout

- Plain language/Common words

- Short sentences

Universal design for materials

Readable Font (Arial, Calibri, Verdana, Tahoma, Aptos)

Large Type 12-14 point, Line spacing 1.2-1.5

Format carefully

Avoid fancy bullets, consider using hierarchy instead

Limit centred or justified text

Use text boxes, numbered lists to break up dense text

Clean, uncluttered layout: good margins, spacing of sections

Why aim for such a low grade level?

The average adult reads 3 to 5 grade levels **below** the highest grade he or she has completed

(Doak et al.,1996)

Health Literacy

“...the ability to access, understand, evaluate and communicate information as a way to promote, maintain and improve health in a variety of settings across the life-course”.

(Rootman &

Gordon-El-Bihbety, 2008)

Other considerations for health literacy

Language proficiency, cultural beliefs and practices regarding health

How printed information is presented:

- complexity

- accessibility

- relevance

- cultural validity

Forms of Health Literacy

Prose Literacy

measures a person's ability to read, understand, and use textual information (i.e. newspaper editorial, brochure)

Document Literacy

measures an individual's ability to find, understand, and use information in items such as forms, maps, and applications.

Numeracy Literacy

measures a person's ability to read, understand and use information that requires the application of arithmetic operations to numbers embedded in printed materials

Digital health literacy

“...the ability to use information and communication technologies to find, evaluate, create, and communicate information for health”
(Verweel et al, 2023)

E-Health Literacy model posits literacy should include:

basic health information scientific media
computer

Some eHealth literacy domains are linked to analytical skills, while others are context-specific

(Norman & Skinner, 2006a)

Contemporary e-health tools also include social media, smartphone apps, wearable technologies

(Verweel et

Literacy consideration for older adults

Aspects that might change with aging

Low vision may reduce ease of reading

Less abstraction, more concrete thinking

Harder to draw conclusions

Less flexibility in thought processes

Aspects that don't tend to change with age

Extensive life knowledge and prior experience to inform decision making & problem solving

Ability to understand spoken language

Picture and image recognition and processing

Patient Education Materials Assessment Tool (PEMAT)

Understandability: content, word choice & style, use of numbers, organization, layout & design, use of visual aids

Actionability: actions, voice, explicit steps, instructions, using diagrams provided

[PEMAT for Printable Materials \(PEMAT-P\) | Agency for Healthcare Research and Quality \(ahrq.gov\)](#)

[PEMAT Tool for Audiovisual Materials \(PEMAT-A/V\) | Agency for Healthcare Research and Quality \(ahrq.gov\)](#)

E-Health Literacy Scale (eHEALS) (Norman & Skinner 2006b)

An 8-item measure of eHealth literacy

Developed to measure the intersection of:

knowledge

comfort

perceived skills

→→ finding, evaluating, and applying electronic health
information
to health problems

[eHEALS: the ehealth literacy scale \(researchgate.net\)](https://www.researchgate.net/publication/228111111_eHEALS_the_ehealth_literacy_scale)

Online resources

www.thewellhealth.ca

<http://www.healthliteracyconnection.ca/>

[Writing_Health_Information_Edition4.pdf](#)

** highly recommended

<https://www.publichealthontario.ca/-/media/documents/health-literacy.pdf?la=en>

[About Health Literacy | Agency for Healthcare Research and Quality \(ahrq.gov\)](#)

[Plain Language at AHRQ | Agency for Healthcare Research and Quality](#)

[Section 1: Product Development | Agency for Healthcare Research and Quality \(ahrq.gov\)](#) (plain language and other formatting guidelines for making knowledge products)

Patient-Mediated Knowledge Transfer

“...strategies that engage patients in their own health care, stands to improve patient **knowledge**, relationship with provider, appropriateness of health service use, **satisfaction** with the care delivery experience, **adherence** to recommended treatment and other health behaviour and outcomes.”

(Gagliardi et al., 2016)

PKT intervention framework

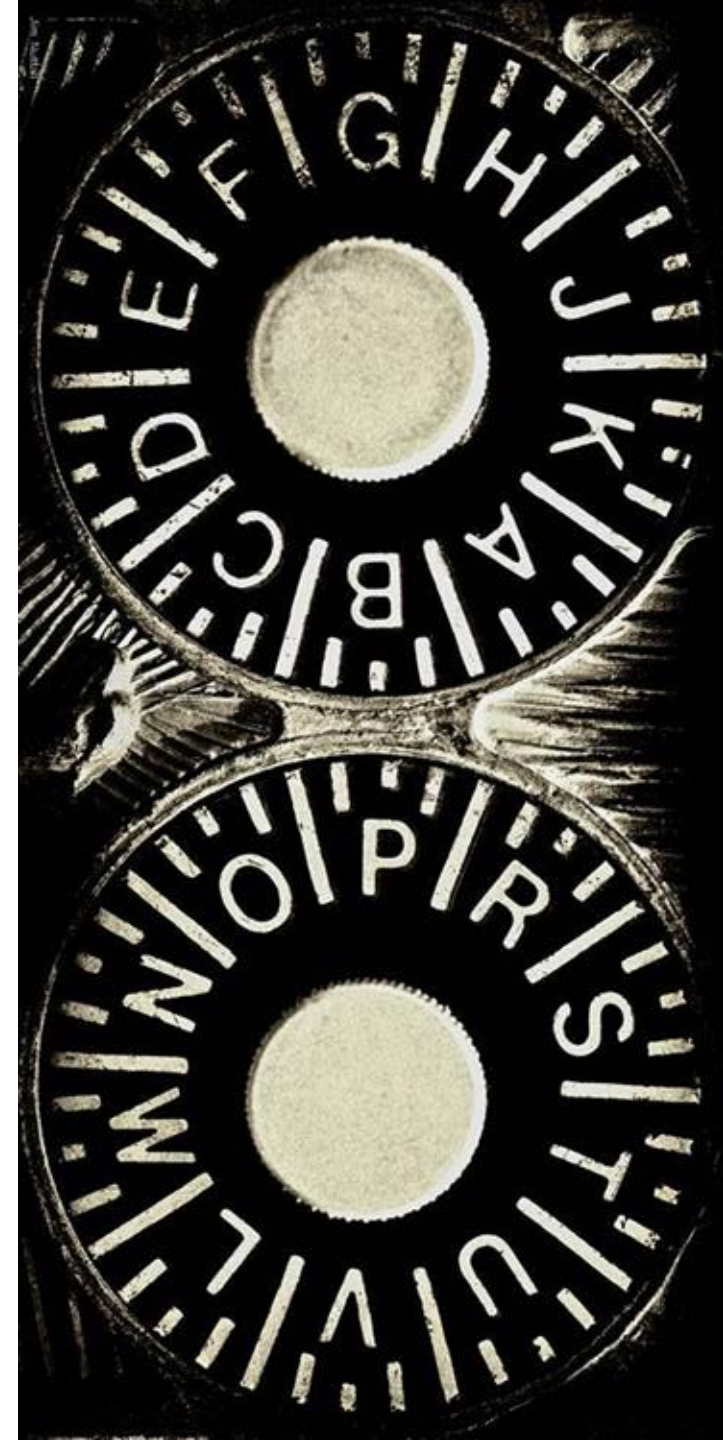
(from Gagliardi et al., 2016)

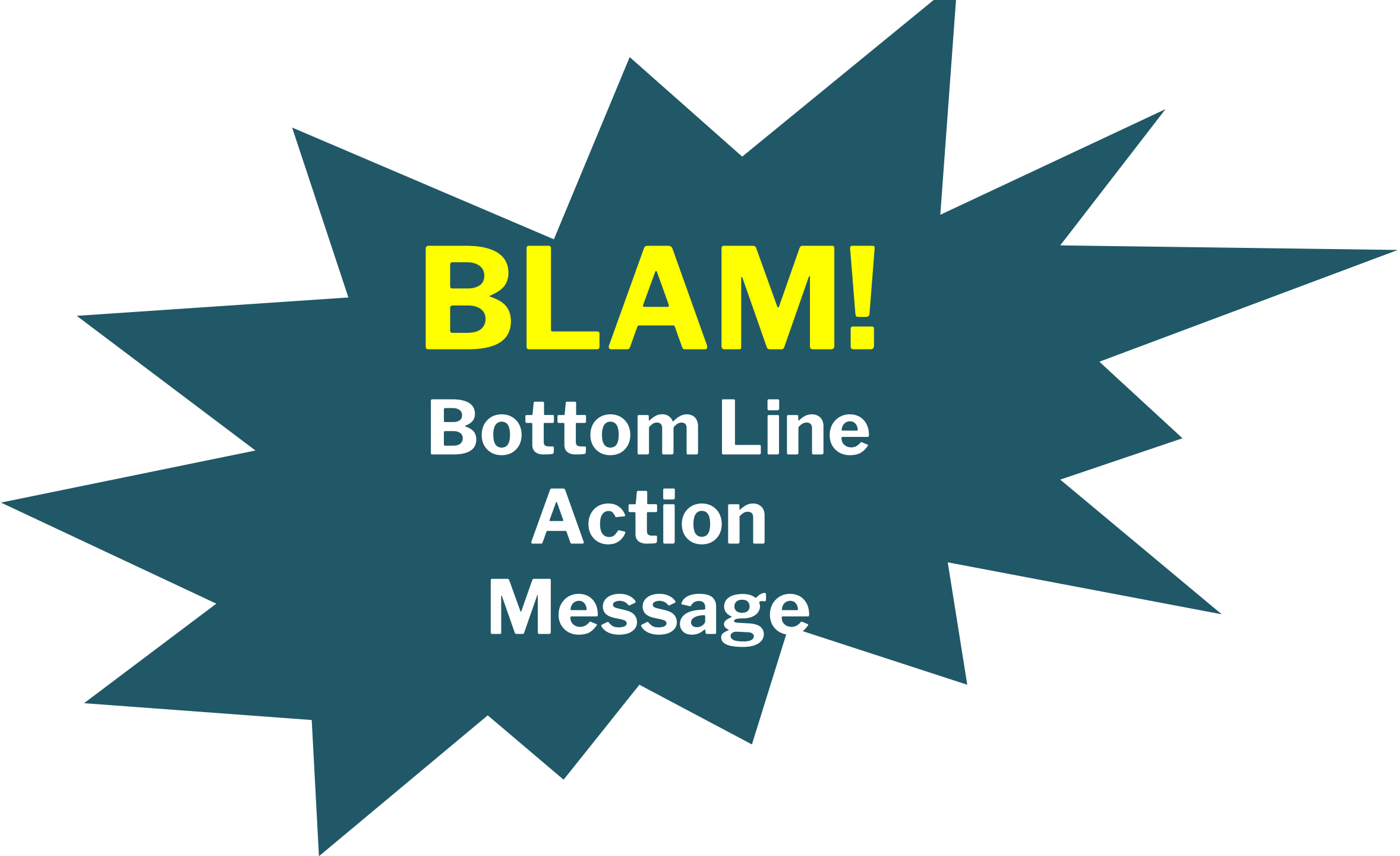
Purposes of Patient-Mediated KT

Information

Activation

Collaboration





BLAM!

**Bottom Line
Action
Message**

Plain language

"The writing and setting out of essential information in a way that gives a cooperative, motivated person a good chance of understanding it at first reading, and in the same sense that the writer meant it to be understood."

Martin Cutts, Oxford Guide to Plain English, 3rd Ed.,
2009

Plain language in plain language...

Write using **simple, clear** and **direct** words and phrases.

Write using words and phrases that are:

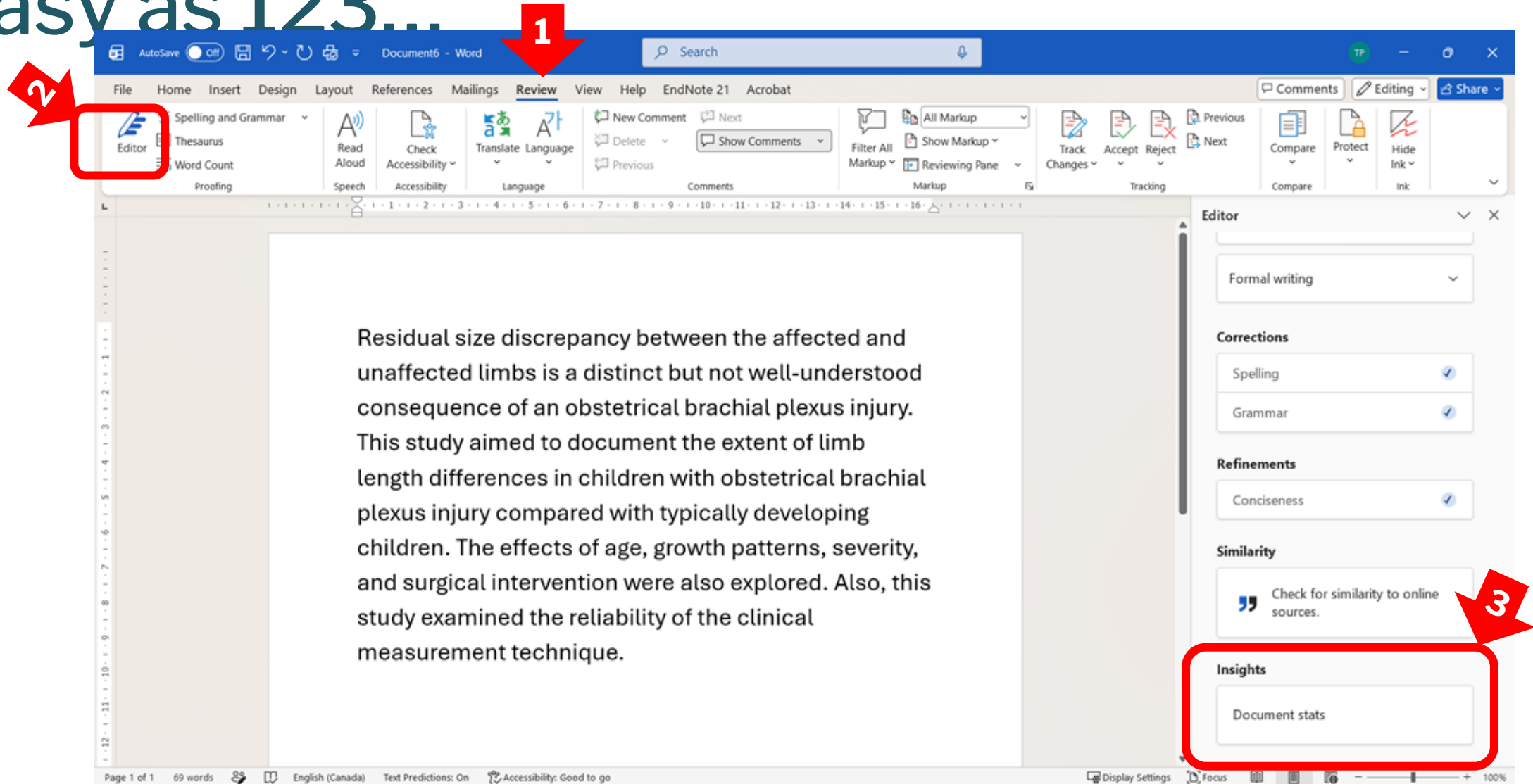
- simple
- clear
- direct

[Not so] Plain language in a typical abstract

Bain JR, DeMatteo C, Gjertsen D, Packham T, Galea V, Harper JA. **Limb length differences after obstetrical brachial plexus injury: A growing concern.** *Plast Reconstr Surg.* 2012;130(4):558e-571e.

Background: Residual size discrepancy between the affected and unaffected limbs is a distinct but not well-understood consequence of an obstetrical brachial plexus injury. This study aimed to document the extent of limb length differences in children with obstetrical brachial plexus injury compared with typically developing children. The effects of age, growth patterns, severity, and surgical intervention were also explored. Also, this study examined the reliability of the clinical measurement technique. [8 lines, 70 words]

Checking readability in a Word doc is as easy as 123...



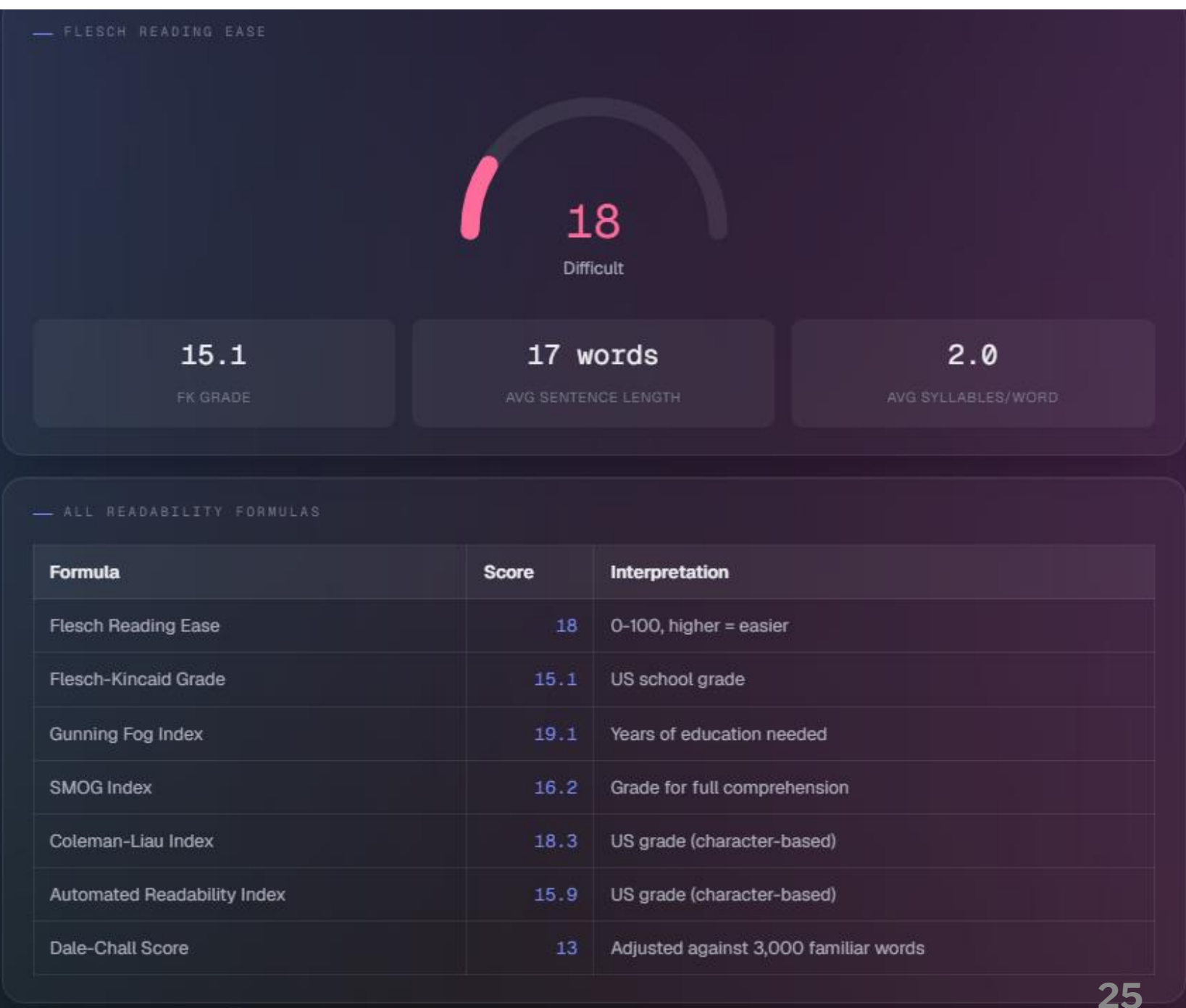
The results for our background section...

Readability Statistics	
Counts	
Words	69
Characters	429
Paragraphs	1
Sentences	4
Averages	
Sentences per Paragraph	4.0
Words per Sentence	17.2
Characters per Word	6.1
Readability	
Flesch Reading Ease	12.7
Flesch-Kincaid Grade Level	15.7
Passive Sentences	25.0%
Readability statistics are based on your text selection.	
OK	

Reading ease /100
Lower scores = harder

Grade 15.7 = 3.7 years past a
high-school education
Lower = easier

<https://wordmeter.app/readability-checker/>



Plain language practice exercise

Background: Residual size discrepancy between the affected and unaffected limbs is a distinct but not well-understood consequence of an obstetrical brachial plexus injury. This study aimed to document the extent of limb length differences in children with obstetrical brachial plexus injury compared with typically developing children. The effects of age, growth patterns, severity, and surgical intervention were also explored. Also, this study examined the reliability of the

clinical measurement technique.

Reminder: To calculate Flesch-Kincaid in Word, select the Review tab >> Editor >> Insights: Document stats.

Does your lay abstract tell a story?

Storytelling as a method for KT has been used across disciplines as an effective way of targeting...

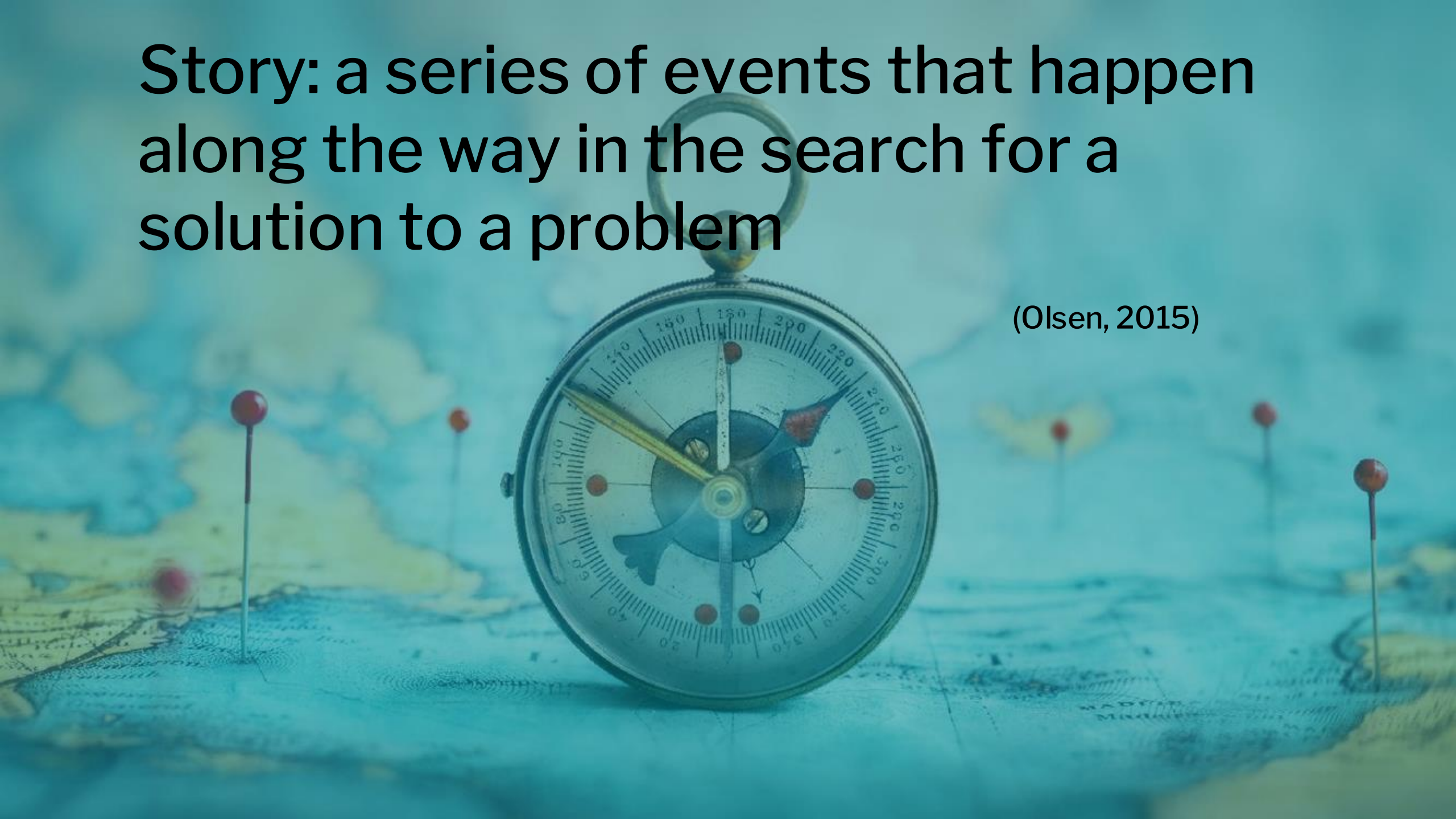
Individuals (Brooks et al., 2022; Park et al., 2021)

Institutions (Park et al., 2021)

Policymakers (Irby et al., 2024; Park et al., 2021)

Story: a series of events that happen along the way in the search for a solution to a problem

(Olsen, 2015)



Build a better story... ABS

(adapted from Olsen, 2015)

Important detail #1 **AND** Important detail #2

BUT

The problem with this is-----,

SO

----- is what we should do/are doing/is
important

Other similar structures...

Problem -- Gap -- Hook (Lingard & Watling, 2021)

They say, I say (Graff & Berkenstein, 2006)

Thesis – Antithesis – Synthesis (Hegel, early 1800s)

Ethos – Pathos – Logos (Aristotle)

ABS words (**not all plain language!)

Agreement

AND

also
equally
identically
uniquely
like
moreover
as well as
furthermore
likewise
similarly

Contradiction

BUT

despite
however
yet
conversely
rather
whereas
although
otherwise
instead
albeit

Consequence

SO

therefore
thus
consequently
hence
thereupon
accordingly
as a result
henceforth
for this reason
in that case

A lay abstract proofing checklist

Review your abstract for:

- Jargon
- Acronyms
- Long noun strings (e.g., "patient-mediated knowledge transfer framework")
- Passive voice
- Unexplained technical concepts
- Information-rich headings
- Use of formatting for clarity and emphasis

Using AI to help write a lay abstract

Be specific with your prompts:

- Specify the audience
- Specify the grade level
- Specify any length restrictions

A series of prompts...

Write this paragraph in plain language at a grade 8 level

Rewrite this using very simple language and avoiding any medical jargon

Write a short summary of this paragraph in plain language for parents who have babies with nerve injuries

Write a short summary of this abstract in plain language for parents who have babies with nerve injuries.

Generate new headings that will make it easier to understand.

Can you make the language closer to grade 6 reading level?

Readability Statistics	
Counts	
Words	235
Characters	1,154
Paragraphs	15
Sentences	18
Averages	
Sentences per Paragraph	1.2
Words per Sentence	12.9
Characters per Word	4.8
Readability	
Flesch Reading Ease	67.7
Flesch-Kincaid Grade Level	7.0
Passive Sentences	16.6%

What Did They Find?
The injured arm was often shorter than the uninjured arm. These differences could be seen as early as **1 month of age**. Children who had bigger arm-length differences at **3 months** were more likely to have bigger differences at **12 months**. Children with larger early growth differences were more likely to need surgery. The arm measurements were simple, safe, and gave consistent results.

What Does This Mean for Parents?
Changes in arm growth can happen early after a birth-related nerve injury. Regular measurements can help the healthcare team track your child's growth and watch for signs that extra treatment may be needed.

Key Message
Differences in arm growth may appear very early in babies with a birth-related nerve injury. Measuring arm growth over time is an easy way to monitor progress and help guide treatment decisions.

child is developing and may help guide treatment decisions.

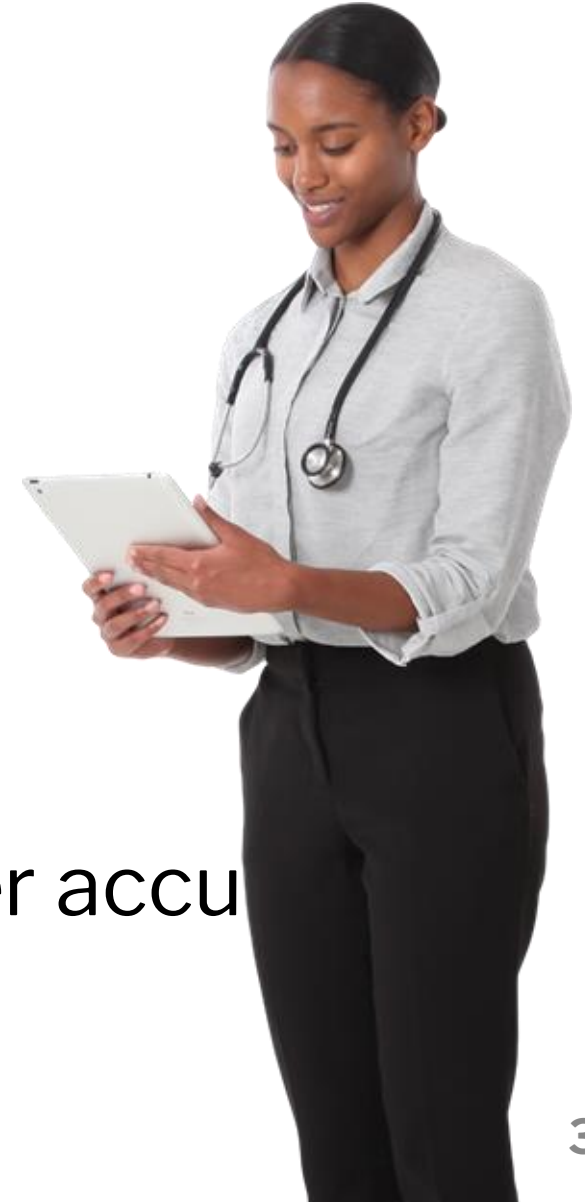
Using AI to help write a lay abstract

Be specific with your prompts:

- Specify the audience
- Specify the grade level
- Specify any length restrictions

Ask for multiple revisions

Share the entire text, not pieces for better accuracy



Specific questions for (human) reviewers

What is the study about?

Why is it important?

What did the researchers do?

What might change because of the findings?

If they can answer these questions, you have communicated your **BLAM!**

BLAM! Practice

Select an abstract

- ...that you have written

- ...that your supervisor has written

Try to write the BLAM in 1-2 sentences using plain language. Then write the rest of a lay abstract, using the BLAM as the opening paragraph.

Post the citation for the paper and your BLAM in the 'BLAM sharing' Google doc

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