University at Buffalo
Clinical and Translational Science Institute

CTSI
OPEN RESEARCH OFFICE

presents:

PLAIN LANGUAGE FOR RESEARCHERS

Andy Strohmeier
M.Ed.

This presentation brought to you by:

The UB Clinical and Translational Science Institute (CTSI)

- **The CTSI** is an infrastructure-based institute (funded by the NIH) with a vision to **perform/enhance research to improve health and reduce health disparities in our communities**.
- Recognizing that those who participate in clinical research typically have better health outcomes, the CTSI:
  - Works closely with researchers and area communities in order to **increase participation in research projects that can improve health and health equity.**
  - Informs community members and stakeholders of **research outcomes that can have an impact on the health of our communities.**

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Meet the CTSI Plain Language Team:

Andy Strohmeier, MEd
Special Populations Coordinator

Laurene Tumiel-Berhalter, PhD
Co-Director, Community & Stakeholder Engagement Core

Christopher Schobert, MA
Director of Communications

Ashley Regling, MA
Clinical Recruitment Coordinator

Keenan Gibbons, MPH
Community Engagement Specialist

Grace McKenzie, MS
Community Engagement Specialist

Marchelle Brooks, MPH, CHES
Clinical Research Facilitator

Advancing research discoveries to improve health for all

CTSI BUFFALO

What is Plain Language?

- **Plain language** (also called lay language) is communication your **audience can understand the first time they read or hear it.**

- The **Plain Writing Act of 2010** defines plain language as:
  - Writing that is clear, concise, well-organized, and follows other best practices appropriate to the subject or field and intended audience.

Short Words

Short Sentences

Short Paragraphs

What is Plain Language for Researchers?

(Flyers, posters, abstracts, papers, recruitment materials, findings, etc)

- **Short Words** (2 syllables or less, whenever possible)
- **Short Sentences** (20 or less words)
- **Short Paragraphs** (4 sentences or less)

Reading Levels:

Aim to have your material at a **5th grade reading level or lower**
(At the very least, it **must** be under a 10th grade level)

Why is Plain Language Important?

- **Connects the researcher to the communities they serve**
  - Decreases the esoteric nature of research and brings the researcher "down from the ivory tower."
  - Leads to an expanded audience with accessibility to the researcher's study.

Researchers *Must* Embrace Plain Language

- **Increases trust in the communities they serve**
  - Past research atrocities (e.g., Tuskegee & HeLa) led to acute distrust of researchers and research by communities, especially black & indigenous communities
- **Increases participation in research**
  - Especially underserved populations (children, elders, cultural & ethnic minorities, urban & rural communities)
- **Increases community health**
  - Research offers the newest and most novel treatments and interventions

Community Data

Buffalo, NY

Race & Origin	
47.1%	White
35.2%	Black or African American
12.2%	Hispanic
5.5%	Other

Education	
71.4%	High School education or lower
68.7%	High School graduation rate
19.9%	Considered “college ready”

Poverty	
28.3%	Currently living in poverty
$25,654	Avg. household income per capita

Researchers *Must* Embrace Plain Language

- **Increases interdisciplinary & team science**
  - Plain language cuts through the technical language of disciplines, including:
    - Words, terms, or phrases known by both disciplines, but may have different meanings, and
    - Words, terms, or phrases known by only one discipline.
- **Interdisciplinary research is on the rise**
- **Researchers attain better performance and earn better funding, both short-term and long-term, through interdisciplinary research**

Why is Plain Language Important for Researchers?

- **Increases interdisciplinary & team science**
  - Breaks down jargon barriers

Why is Plain Language Important for Researchers?

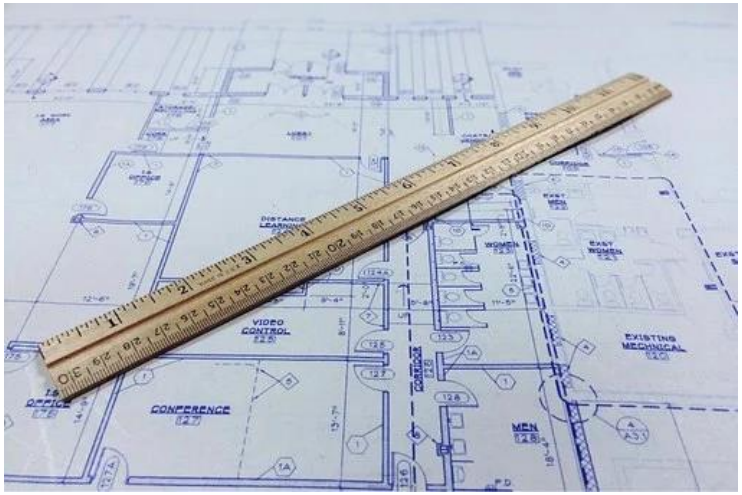
- **Increases interdisciplinary & team science**

"Ruler"

Why is Plain Language Important for Researchers?

- **Increases interdisciplinary & team science**

"Ruler"



Why is Plain Language Important for Researchers?

- **Increases interdisciplinary & team science**

"Ruler"

Why is Plain Language Important for Researchers?

- **Example 2: Star Wars Syndrome**

"You will pay attention!" "Pay attention, you will!"

Why is Plain Language Important for Researchers?

- **Example 2: Star Wars Syndrome**

  "You will pay attention! "Pay attention, you will!

  Same syllables. Same words. Same sentence length. Totally different connotations. Totally different syntax and semantics and cultural connotations.

  People who love Star Wars know what you are referring to. Non-Star Wars fans will think you're speaking a different language.

  This is what it is like for special populations, especially New Americans, to understand technical language of research. They have no frame of reference, so they do not understand.

We Think we are Clear, but We're Not.

Research readability remains a problem

An analysis of 6 abstracts presented *to the community:*

ABSTRACT

READABILITY INDEX	1	2	3	4	5	6	Avg.
Flesch-Kincaid	14.8	18.1	14.2	15.7	15.7	16.2	**13.1**
SMOG	16.8	18.7	15.0	18.0	17.0	16.6	**17.0**
Readability%	42%	24%	59%	36%	36%	47%	**40.7%**

STRATEGIES TO INCREASE RESEARCH READABILITY

Readability Index

Readability indices are formulas that were developed to estimate how difficult a text is to read

Flesch-Kincaid Grade Level

- Used widely and highly regarded for its reliability.
- Can easily be added to **Microsoft Word Spell Check**.
- The number equals the **American School grade level** you would need to be in to comprehend the material. Suitable for the grading of a wide range of writing and for all ages.
- Aim to have your Flesch-Kincaid Grade Level **between 5 and 10 (or lower)** for maximum readability.

readable

Flesch Kincaid Grade Level

$$0.39 \left(\frac{\text{total words}}{\text{total sentences}} \right) + 11.8 \left(\frac{\text{total syllables}}{\text{total words}} \right) - 15.59$$

Readability Index

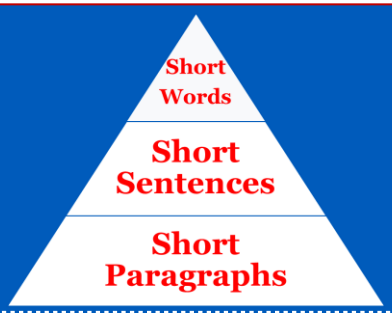
Readability indices are formulas that were developed to estimate how difficult a text is to read

SMOG Readability Index

- SMOG stands for 'Simple Measure of Gobbledygook'. It measures **how many years of education the average person needs to have to understand a text.**
- Best for texts of **30 sentences or more**.
- Widely accepted as a standard readability index for **healthcare research** and is backed up by years of research.

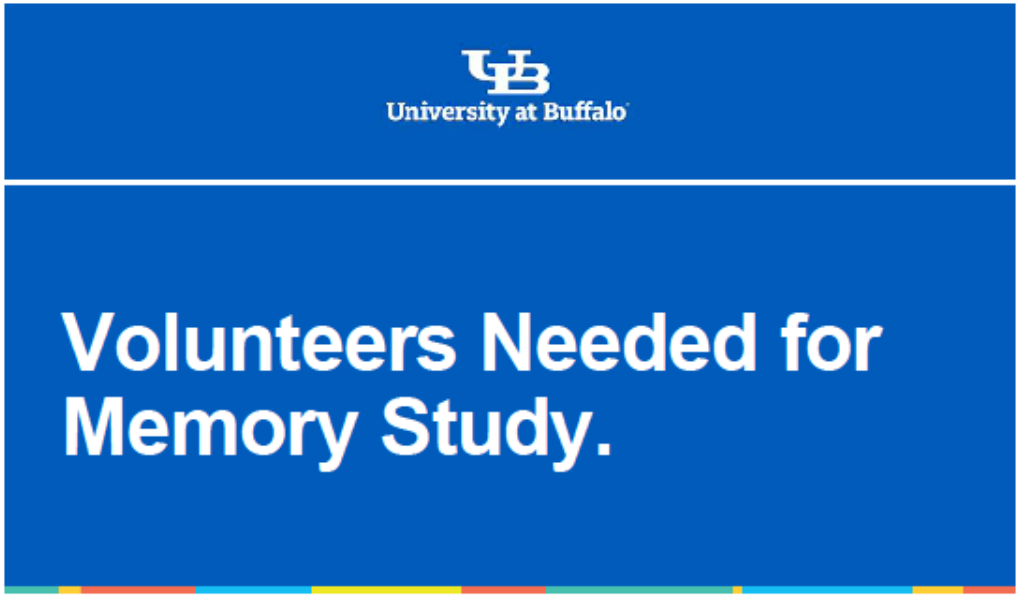
Writing Tips for Readability

- Aim for **5th grade reading level or lower.**
- Try to make sentences **no more than 20 words long**.
- Use words with **1 or 2 syllables** whenever possible.
- Use words that are **common in plain language**, when you can.
- Try to make **paragraphs no more than 4 sentences long.**
- Make the information **as simple as possible**. Additional details can be shared with the participant during screening or on the consent form.



Readability Example: Flyer

Readability Example: Flyer



In this study, you will:

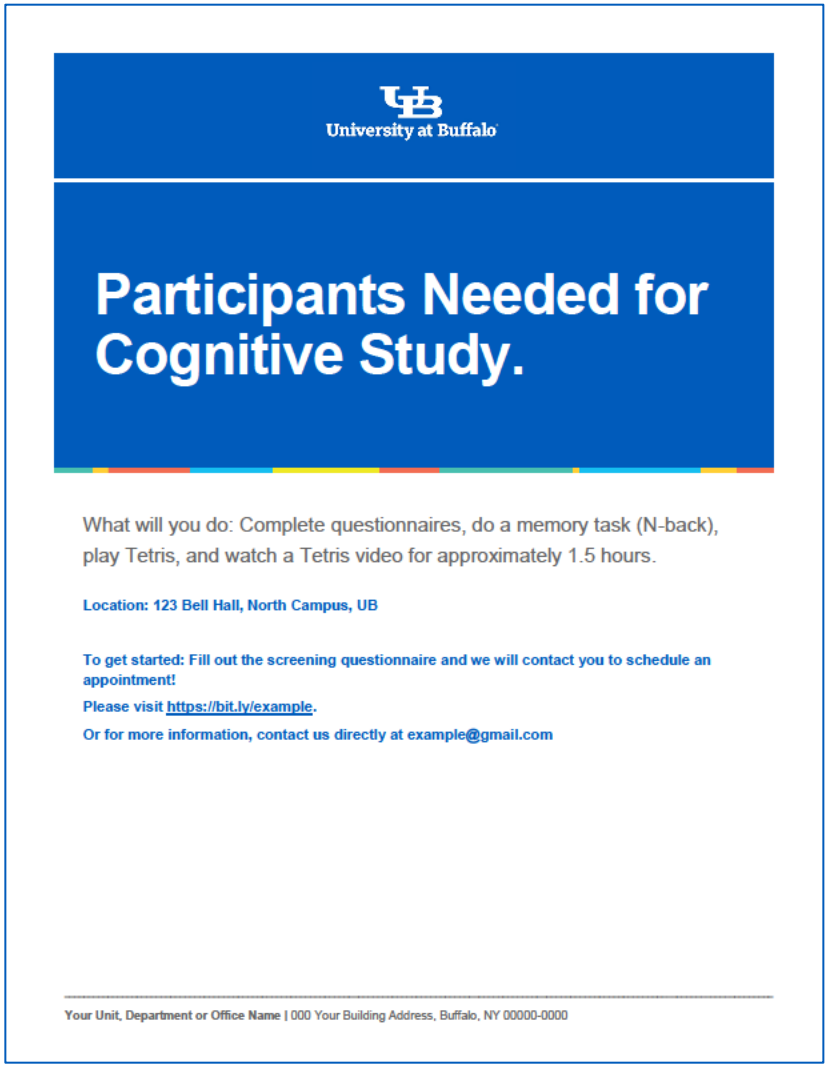
- Visit the office once for 1 and a half hours
- Complete surveys
- Play video games
- Watch a video

The office is at 123 Bell Hall, North Campus.

Are you interested?

Fill out this survey https://bit.ly/example. Contact us at example@gmail.com.

Readability Example: Flyer



University at Buffalo

Participants Needed for Cognitive Study.

What will you do: Complete questionnaires, do a memory task (N-back), play Tetris, and watch a Tetris video for approximately 1.5 hours.

Location: 123 Bell Hall, North Campus, UB

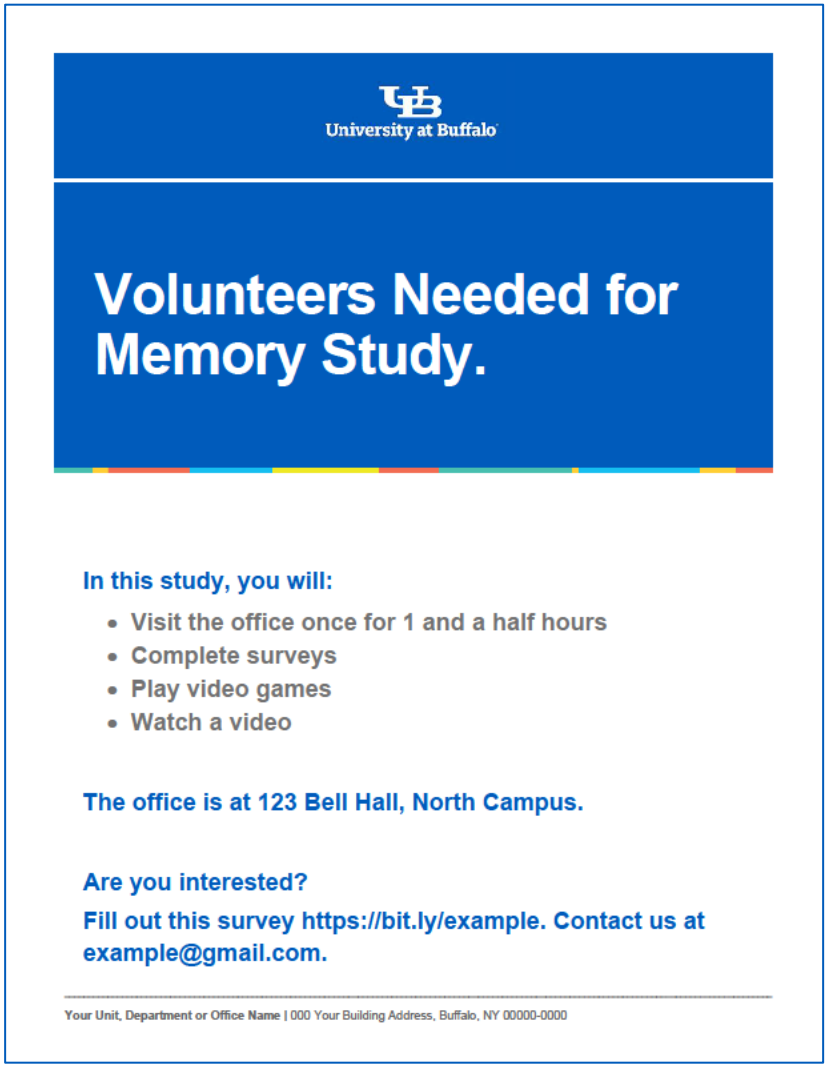
To get started: Fill out the screening questionnaire and we will contact you to schedule an appointment!

Please visit https://bit.ly/example.

Or for more information, contact us directly at example@gmail.com

Your Unit, Department or Office Name | 000 Your Building Address, Buffalo, NY 00000-0000

Flesch-Kincaid Grade Level: 9.5



University at Buffalo

Volunteers Needed for Memory Study.

In this study, you will:

- Visit the office once for 1 and a half hours
- Complete surveys
- Play video games
- Watch a video

The office is at 123 Bell Hall, North Campus.

Are you interested?

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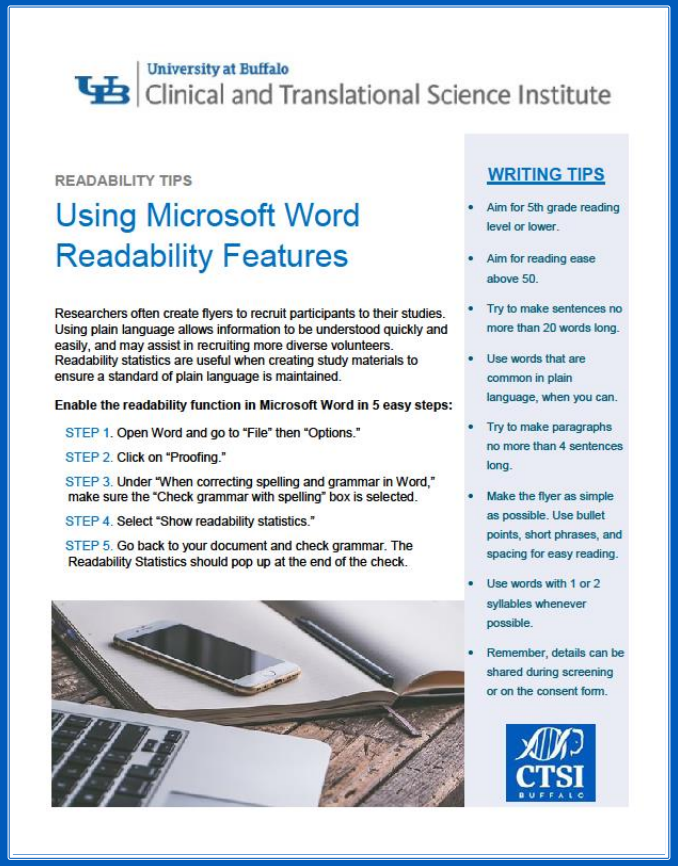
Your Unit, Department or Office Name | 000 Your Building Address, Buffalo, NY 00000-0000

Flesch-Kincaid Grade Level: 4.9

RESOURCES

ASK THE NERDS!

- **Consultation Services**
  - The CTSI can help investigators present their research to the community and colleagues in plain language.
  - Materials we can help to improve by using plain language include:
    - Flyers, brochures, and other recruitment materials
    - Papers
    - Presentations
    - Abstracts
  - For a consultation on plain language & research readability, please contact plainlanguage@buffalo.edu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READABILITY TIPS

Using Microsoft Word Readability Features

Researchers often create flyers to recruit participants to their studies. Using plain language allows information to be understood quickly and easily, and may assist in recruiting more diverse volunteers. Readability statistics are useful when creating study materials to ensure a standard of plain language is maintained.

Enable the readability function in Microsoft Word in 5 easy steps:

STEP 1. Open Word and go to "File" then "Options."

STEP 2. Click on "Proofing."

STEP 3. Under "When correcting spelling and grammar in Word," make sure the "Check grammar with spelling" box is selected.

STEP 4. Select "Show readability statistics."

STEP 5. Go back to your document and check grammar. The Readability Statistics should pop up at the end of the check.

WRITING TIPS

- Aim for 5th grade reading level or lower.
- Aim for reading ease above 50.
- Try to make sentences no more than 20 words long.
- Use words that are common in plain language, when you can.
- Try to make paragraphs no more than 4 sentences long.
- Make the flyer as simple as possible. Use bullet points, short phrases, and spacing for easy reading.
- Use words with 1 or 2 syllables whenever possible.
- Remember, details can be shared during screening or on the consent form.

CTSI BUFFALO

RESOURCES

- **For general research consultations, please contact ctsiresearch@buffalo.edu**
  - General Assistance
  - Advertising/Marketing
  - Flyer templates, boilerplate recruitment language for protocols
  - And more

- **CTSI Recruitment Resources Toolkit**

- **Online Study Listings**
  - Participate in Research Portal
  - ClinicalTrials.gov

- **Participant Databases**
  - Buffalo Research Registry
  - ResearchMatch.org
  - i2b2 and TriNetX

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CTSI ANNUAL FORUM
WEDNESDAY, MARCH 15TH, FROM 12:30-4:30P.M.

The Forum will include a panel discussion on Plain Language, with comments from community representatives and researchers on innovative approaches to communicating research in an understandable way.

Panelists include:

•**Kelly Wofford**, MS, Director of the Health Equity Office for the Erie County Department of Health

•**Veronica Meadows-Ray**, research team member and participant with the National Witness Project

•**Melanie Green, PhD**, Chair and Professor of Communication, College of Arts and Sciences

•**Liise K. Kayler, MD**, Program Director, Kidney and Pancreas Transplantation, Chief of the Division of Transplant Surgery, Jacobs School

•**Jinjun Xiong, PhD**, SUNY Empire Innovation Professor, Professor, Computer Science and Engineering, School of Engineering and Applied Sciences

REFERENCES

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2. Resnick JC. Increasing Opportunity through Interdisciplinary Research: Climbing Down and Shattering a Tower of Babel. Front Psychiatry. 2011 May 12;2:20. doi: 10.3389/fpsyt.2011.00020. PMID: 21629838; PMCID: PMC3098683.
3. Sun, Y., Livan, G., Ma, A. et al. Interdisciplinary researchers attain better long-term funding performance. Commun Phys 4, 263 (2021). https://doi.org/10.1038/s42005-021-00769-z

MORE INFORMATION

- analyzemywriting.com/readability_indices
- Plainlanguage.gov
- Readable.com

Thank you!

Future Plain Language items to keep an eye out for:

- A novel AI that can analyze existing research materials and suggest Plain Language and Community-Friendly language changes
- Future Consultations
- Opportunities to workshop your materials
- Tutorials on analyzing and improving the readability of your materials
- And more!

Questions? Comments? Ideas?

Andy Strohmeier, MEd
awstrohm@buffalo.edu

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