

CSE 193: Elements of Good Technical Writing

Useful for proposals and papers

Please sit with your research group

Last Class

Literature Searching

- On Google Scholar
- Backward and Forward search
- High quality papers

This Class

- Announcements
 - Grading
 - Research Folder Organization
- Final Mini-Presentation
- Overview of the Proposal Assignment on Canvas
- The Writing Hub as a Resource
- Elements of Good Technical Writing
- Proposal Writing Stages

Announcements: Grading

- You can raise your grade (0 or 1)
 - Address Vaidehi's feedback
 - Respond to comments
 - DO NOT Resolve it – Vaidehi will take a look and resolve it
 - Not every time
 - Within a limited timeframe

Announcements: Research Folder Organization

- Flat vs. hierarchical structure
- Chandraker Group [Example](#)
 - Amanda, Nitya, Nick, and Saarthak
- Vaidehi's Recommended Hierarchical [Structure](#):
 - Folder for each group member
 - Class Resources
 - Research Papers
 - Group log

Mini-Presentation

- [Switzer/Kastner: Renée: New Life for Old Phones](#)

Overview of the Proposal Assignment on Canvas

- **Research Context and Problem Statement (Week 5)**
- **Proposed Solution (Week 6)**
 - What your group will do in Winter and Spring?
- **Evaluation and Implementation Plan (Week 7)**
 - Evaluation Plan
 - Effectiveness and efficiency of your work
 - Timeline
- Peer review and Proposal Edits (Week 8)

The Writing Hub

- Group/team writing consultations
 - **In person** at Geisel
 - **Synchronous** Remote Option
 - One member makes the appointment <https://ucsd.mywconline.com/>



On Canvas

Today's Goal:
Understand
Elements of
Good Technical
Writing

Topic: Elements of Good Technical Writing

In-Class Activity

Research Proposal Example: [LernerGroupFinalProposal2019.pdf](#) ↓

[Writing Workshop folder](#) ↗ : Click on the link to the folder and make a copy of the TEMPLATE document, renaming it with the name of you and your partner (or your group if you are working as a whole group).

Hate Lingo paper: <https://ojs.aaai.org/index.php/ICWSM/article/view/15041/14891> ↗

Thesis Statement ↗ [form](#) ↗ .

Low-level mechanics exercises: <http://www.sfu.ca/~whitmore/style/> ↗

Elements of Good Technical Writing

Elements of Good Technical Writing

Argument

Acknowledging Limitations

Conciseness

Audience

Brainstorming

Statistics

Paragraph Development

Evidence

Avoiding Fallacies

Avoiding Plagiarism

Thesis Statement

Drawing Relationships

Conclusions

Figures and Charts

Sentence Patterns

Scientific Writing

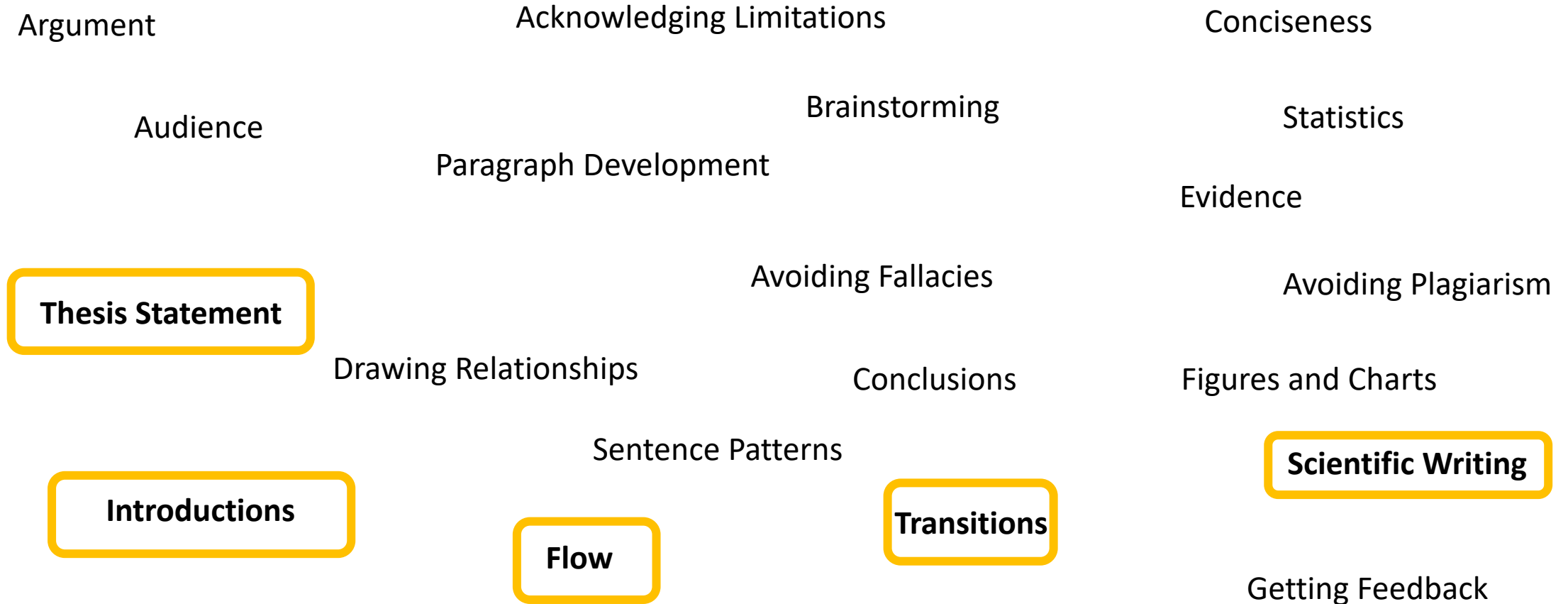
Introductions

Transitions

Flow

Getting Feedback

Elements of Good Technical Writing (EGTW)



EGTR: Thesis Statement

- A **road map** for the paper/proposal
 - tells the reader/reviewer what to expect from the rest of the paper/proposal
- In a paper, almost always in the Introduction section of the paper
- In your proposal, in research context and problem statement

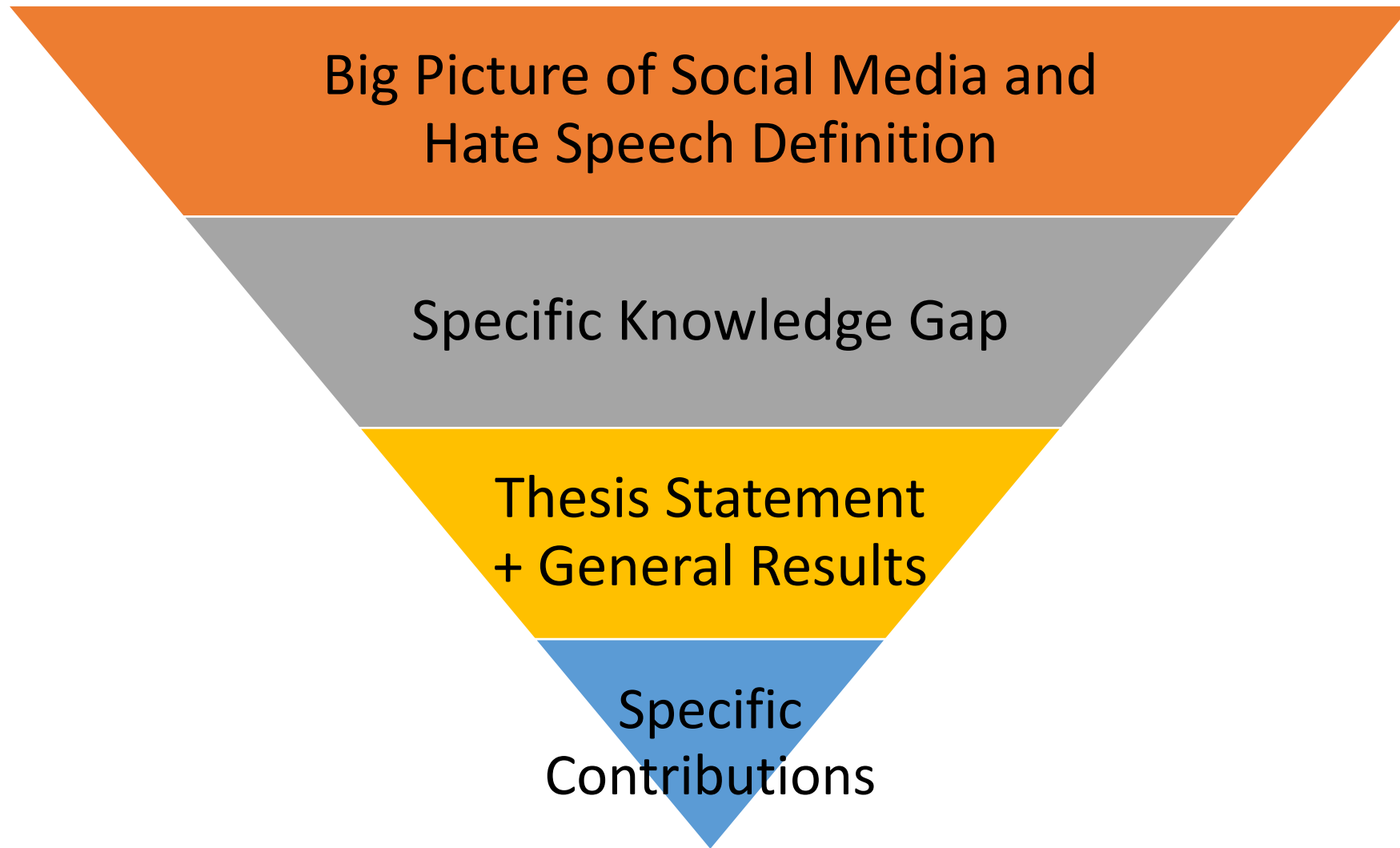
EGTR: Thesis Statement

Hate Lingo: A Target-Based Linguistic Analysis of Hate Speech on Social Media

Identify the Thesis Statement in the Introduction, discuss as a group, then submit to [Google Form](#)

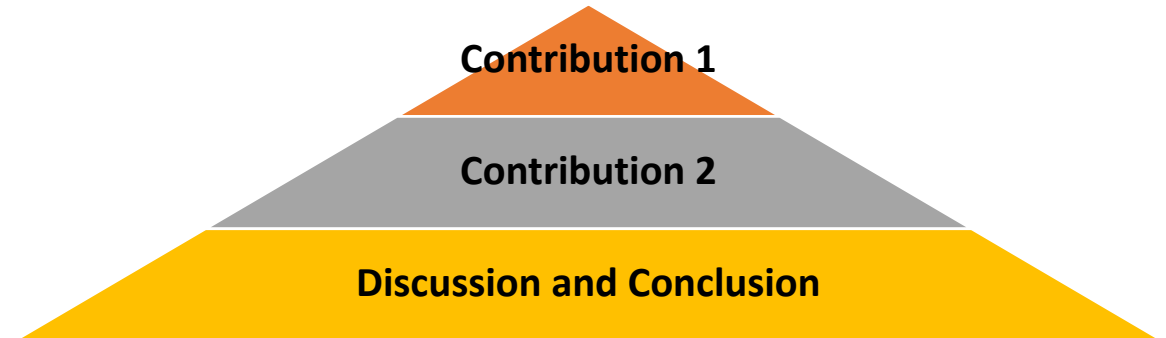
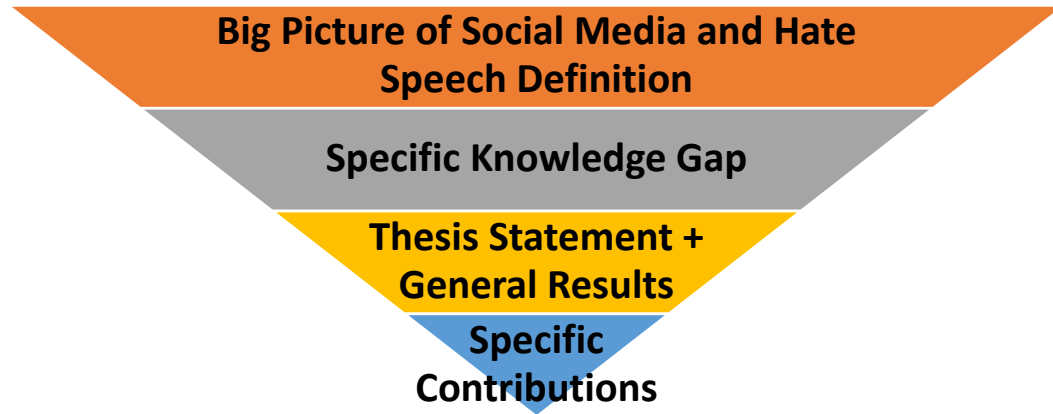
Warning: Content in the paper can be upsetting. Feel free to stop at any time.

EGTR: Introduction



EGTR: Introduction

Introduction



Rest of Paper/Proposal

EGTR: Scientific Writing (Problem/Solution)

EGTR: Scientific Writing (Problem/Solution)

- Is the **rationale** for performing the experiment **clear** (i.e., have you shown that the **question you are addressing** is important and interesting)?
- Is the **rationale** behind the choice of **experimental** methods **clear**? Will the reader understand why those particular methods are appropriate for answering the question your research is addressing?
- Will the reader be able to **follow the chain of logic** used to draw conclusions from the **data**?

EGTR: Transitions and Flow

Writer's Checklist

- Does the proposal include?
 - the problem or opportunity?
 - the background of the problem or opportunity?
 - your sources of information?
 - the scope?
 - the organization of the proposal? (usually in the Introduction)
 - the key terms that you will use in the proposal?

Phase 1: Initial Draft of each Section

DO focus on:

- Strong motivation, contextualization of the problem, and relationship to prior work
- Having a thesis statement
- Overall flow of ideas
- Being clear *why* you are presenting technical details. Presenting problems before solutions
- Clarity of technical explanations—avoid jargon, introduce terms, etc

Do NOT worry about:

- Length
- Grammar
- Concision
- Paragraph structure (at least not that much)

Phase 2: Initial Revisions (before peer review, can be done as you write more sections)

DO focus on:

- Everything from phase 1
- Clarity: Are you sure what you're saying makes sense?
- "So what": Is it clear why someone should care about your proposed work?
- Paragraph structure and transition sentences
- Concision (somewhat, but don't need to go overboard yet)
- Grammar (again, somewhat)

Do NOT worry about:

- Length

Phase 3 and beyond: Further Revisions

- At each subsequent revision, make sure to incorporate both the feedback you have received, **AND** revisions that address all of the focus areas from previous phases. Often you'll need several rounds of revisions to really address issues.
- In later phases pay particular attention to sentence structure and clarity. Follow the exercises here: <http://www.sfu.ca/~whitmore/style/>

Resources

- Style Exercises for Technical Writers
 - <http://www.sfu.ca/~whitmore/style/>
- Citation style guides
 - <https://libguides.mit.edu/c.php?g=176032&p=1159365>
- Group Writing
 - <https://writingcenter.unc.edu/tips-and-tools/group-writing/>

Thank you!