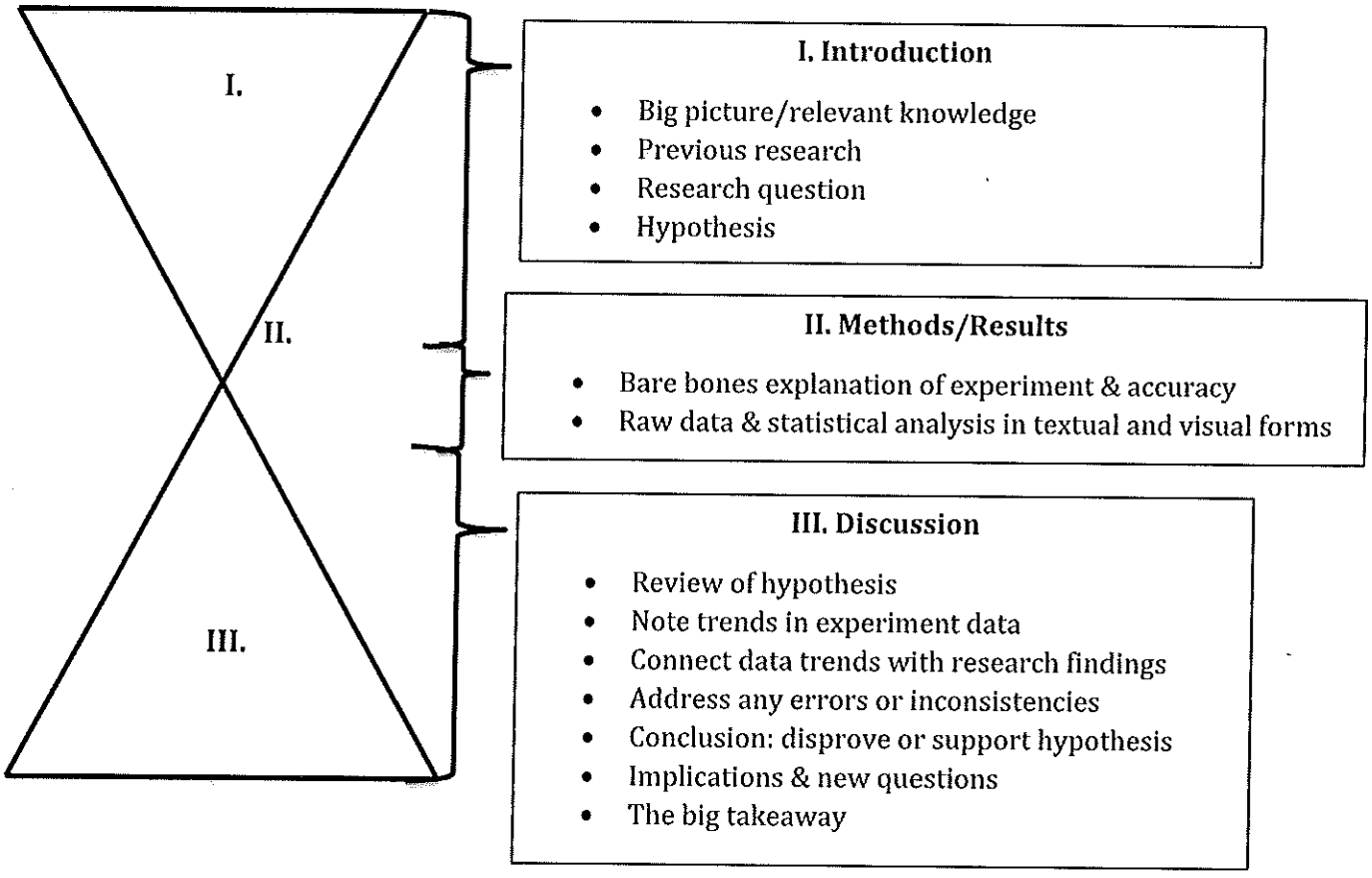
A Brief Introduction to Scientific Writing

You've worked hard in your English classes, mastering MLA formatting and rhetorical strategies. Suddenly, you find yourself in a science class and discover the writing rules seem to have changed. How do you adapt your writing to fit this new discipline? Effective scientific writing hinges on three main qualities: structure, clarity, and tone.

I. Structure

- Most forms of scientific writing are organized in a "bowtie" structure.
- Each element must remain in its specific place.
  - For example, data cannot appear in the conclusion.
- Do not spend too much time on errors or inconsistencies.



- In some science classes, you will be required to use passive voice exclusively. In others, both active and passive voice are permitted, with clarity being the determining factor. But how can you tell which is which?
  - ✓ **Active voice (subject performs action):** Subjects self-reported pulse rates.
  - ✓ **Passive voice (subject receives action):** Pulse rates were measured and recorded.
    - How can you tell if a sentence is in passive voice? Try the "by zombies" test. If you can add the words "by zombies" to a sentence and it makes sense, it is in passive voice.
    - EXAMPLE: Heart rates were measured (by zombies).
- When using active voice, some instructors may still want you to avoid personal pronouns (I, we, you). Instead, use words like "researchers" and "subjects."
  - ☒ We analyzed the data.
  - ✓ Researchers analyzed the data.

If you stay focused on structure, clarity, and tone, you will be able to navigate the transition to scientific writing.

References

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