Writing the Methods Section (transcript from a video from David Stuckler)

https://www.youtube.com/watch?v=QAOe9SdY9KM&t=6s)

Best Tip: The "Nearest Neighbor" Paper:

- Find a published paper in your field that closely aligns with your research topic and methods.
- Use its methods section as a model or guide. While you should still adhere to the linearity principle even if your chosen paper doesn't, this provides a concrete vision and standard for your field.
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By following these principles and incorporating all four components in a linear fashion, writing the methods section becomes straightforward and significantly increases the chances of publication in high-impact journals.

I. Core Writing Principles

1. **Start with the Methods**
    - Contrary to common advice, begin your writing process with the methods section.
    - You know exactly what you did, making it natural and easier to describe concretely.
    - Write it immediately after completing your research to ensure details are fresh in your mind.
2. **Maintain Linearity (Chronological Flow):**
    - Imagine writing a recipe that someone else can follow to replicate your work.
    - Science relies on reproducibility, so a clear, step-by-step account is crucial.
    - Avoid jumping between different stages (e.g., discussing analysis before data description).

II. Four Essential Components of the Methods Section:

These components should typically flow in a logical, linear order:

1. **Type of Study/Methodology:**
    - Clearly state the specific type of study conducted (e.g., experiment, systematic review, quantitative analysis, qualitative analysis).
    - This can be a brief one or two-line statement.
    - Justify your choice of method, potentially with citations to establish that you're using an appropriate and established approach in your field.
2. **Data Generating Process:**
    - Explain *how* you obtained your data.
    - **For surveys:** Describe questions asked, who was surveyed, and the mechanics.
    - **For qualitative research:** Detail recruitment strategies, participant identification, approval processes, and interview content (e.g., semi-structured interviews and types of questions).
    - **For quantitative research (existing data):** Provide links to databases or explain data sets linked.
    - **For experiments:** Describe the specific data collection methods used.
3. **Analysis:**
    - Describe the tools and techniques used to interpret your data against your research questions.
    - **For quantitative research:** Specify statistical analyses performed.

- **For qualitative research:** State the type of analysis (e.g., phenomenological, thematic, content analysis).
- Justify your analytical approach, citing similar studies that used comparable methods to reinforce the foundation of your work.

4. **Ethics, Funding, and Approvals:**
    - Detail any ethics committee approvals, institutional review processes, or specific precautions taken, especially when involving sensitive or vulnerable groups.
    - Disclose funding sources and explain how any potential conflicts of interest were managed. This is often the final subsection.