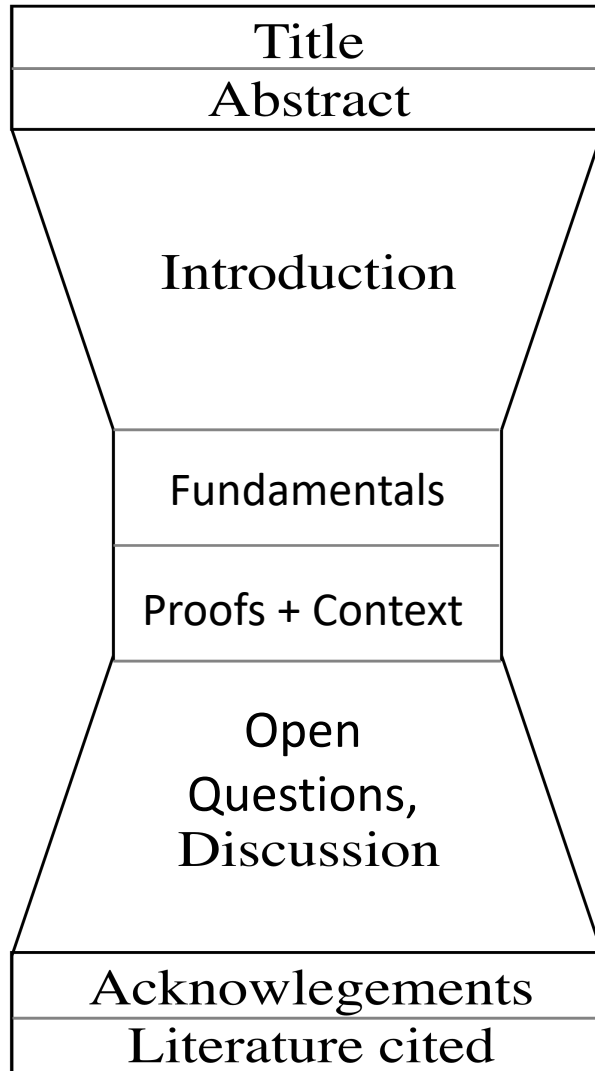


Writing a Survey

Outline

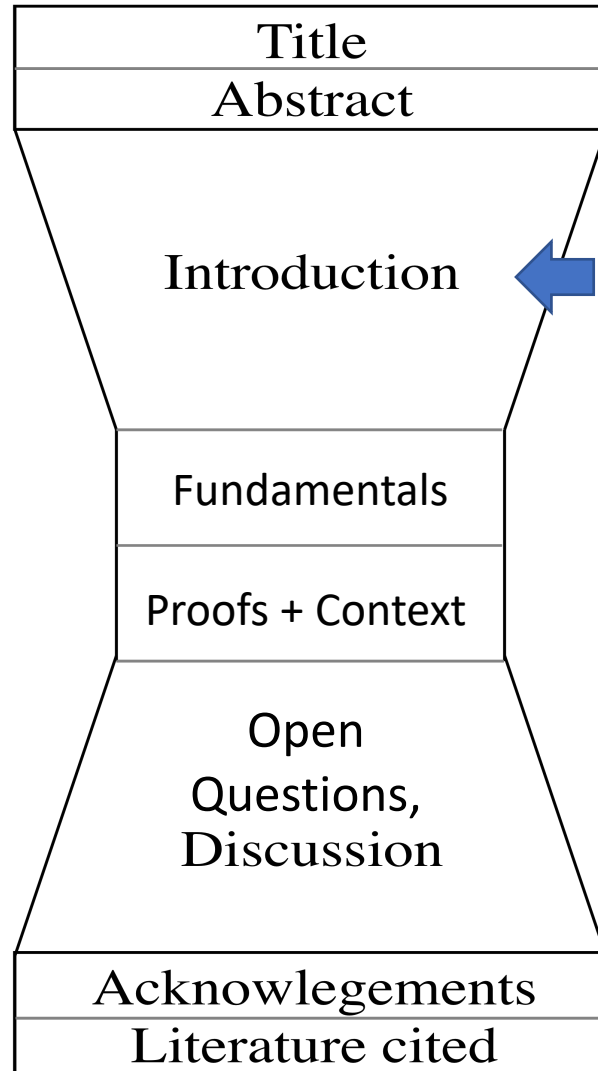
- Global structure
- Section/Paragraph structure (moves)

Overall Structure



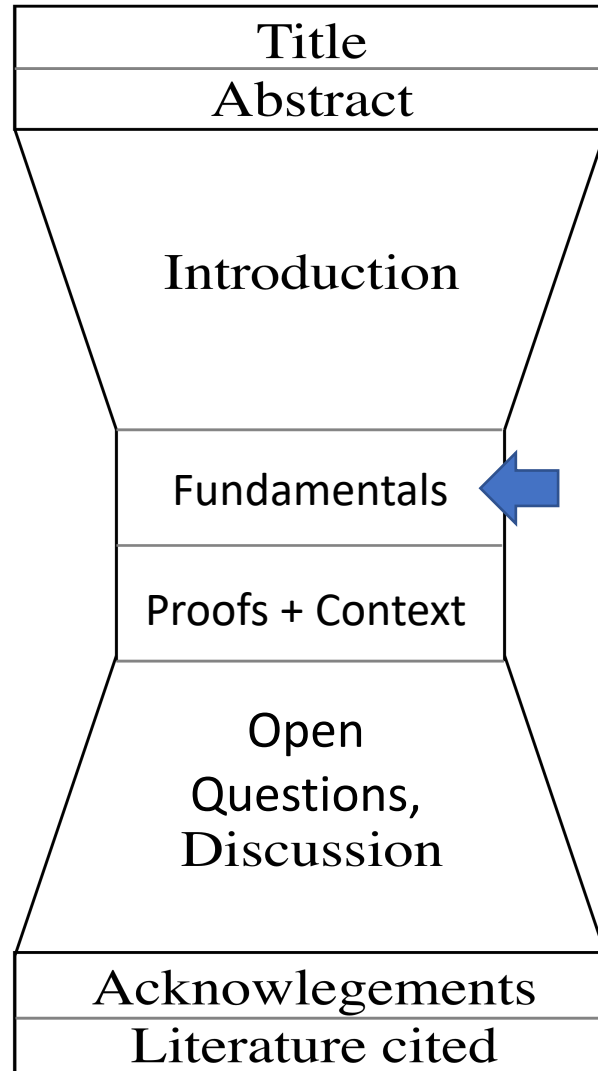
Larger width means broader concepts and ideas, which are usually accessible to a larger audience

Overall Structure



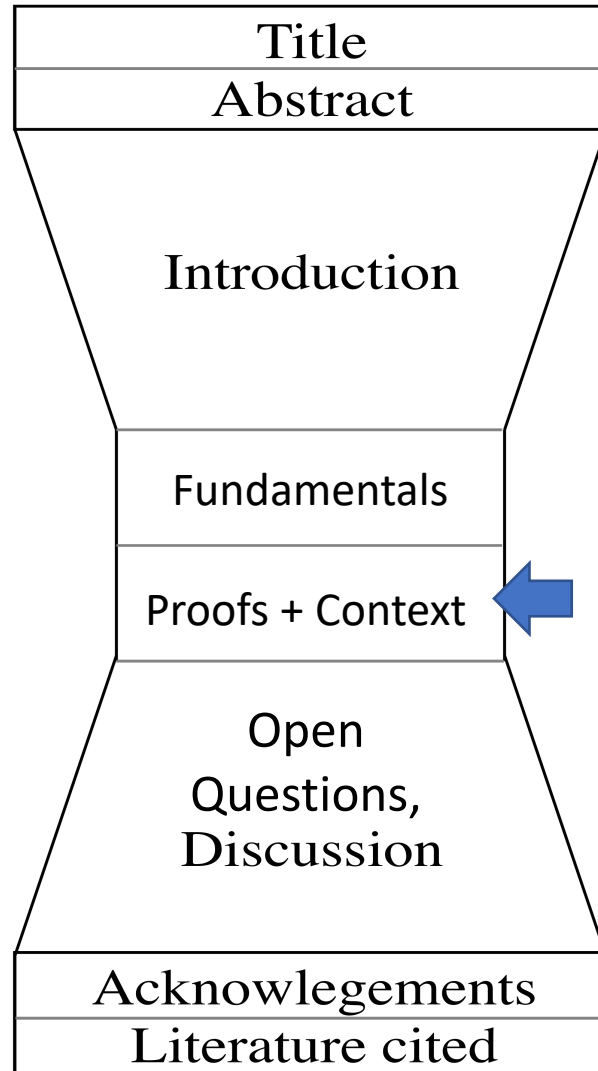
Draw the reader's interest from something you are pretty sure they are interested in, to your subject. Explain why this subjects connects to things the reader cares about

Overall Structure



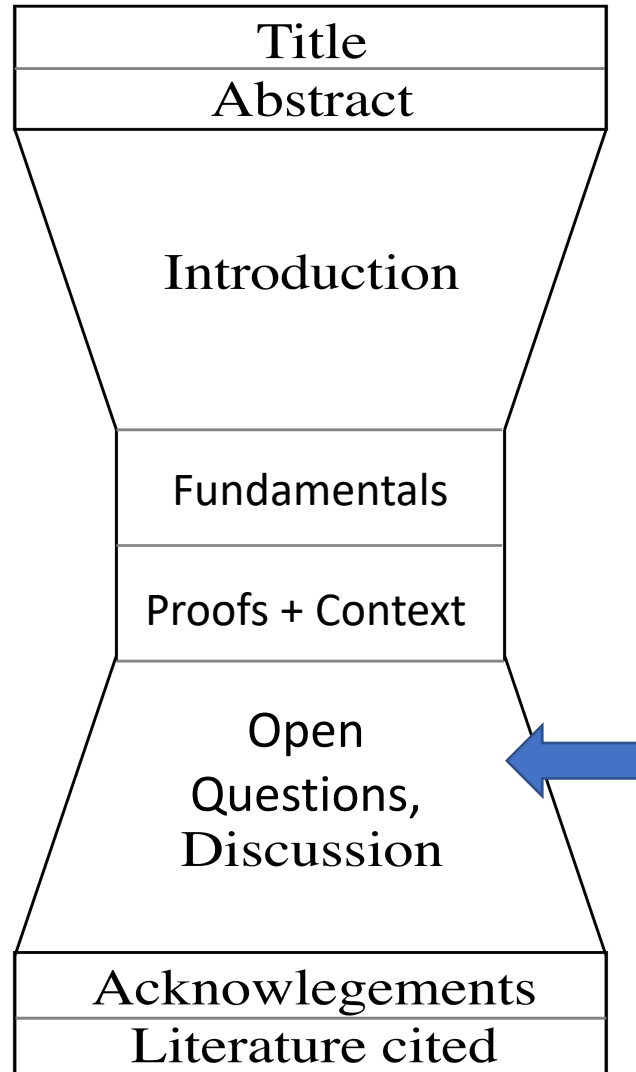
Introduce notation. Define classes. Follow up on important ideas and concepts about the class with more technical details.

Overall Structure



Proofs should be clearly written. Also discuss why these are important proofs for understanding the class

Overall Structure



A lot of surveys list open questions, and discuss what the consequences would be of answering those questions.

Outline

- Global structure
- Section/Paragraph structure (moves)

Moves

| Statement | Move (purpose) |
|--|---|
| A man gets into a car accident and breaks his wrist. | Setting the context of the joke. |
| He goes to the hospital, where a doctor puts him in a cast. | Introduces comedic foil |
| Before he leaves, the man asks the doctor, “Hey, when this is all better, will I be able to play the piano?” | Setting up the punchline, sets expectation that man plays the piano |
| “Sure!” the doctor says. “You’ll be fine in just a few weeks.” | Encourages identification with foil view |
| “Cool! I’ve always wanted to play an instrument.” | Punchline violates expectations |

Each sentence should have a purpose!

From [Write Like a Scientist](#)

What are the moves?

[1] Every NP-complete problem can be solved by exhaustive search. [2] Unfortunately, when the size of the instances grows the running time for exhaustive search soon becomes forbiddingly large, even for instances of fairly small size. [3] For some problems it is possible to design algorithms that are significantly faster than exhaustive search, though still not polynomial time. [4] This survey deals with such fast, super-polynomial time algorithms that solve NP-complete problems to optimality.

From introduction to [Exact Algorithms for NP-Hard Problems, a Survey](#)

Typical Abstract Moves

1. Describe what your project was about

- i. Identify the broad area of your research and its importance
- ii. Identify the gap(s) you address in your project
- iii. Describe the purpose of your project



2. Identify the methods used



3. Summarize your results

- i. Report the principle findings of your project
- ii. Make a concluding statement about your results

From [Writing Like a Scientist](#)

Typical Introduction Moves

1. Describe the background of your study

- i. Introduce the general area of research
- ii. Establish the importance of this area of research
- iii. Identify critical evidence from the literature



2. Identify the gap(s)



3. Fill the gap(s)

- i. Introduce what this work did to address the gap
- ii. Summarize your key findings

From [Writing Like a Scientist](#)

Typical Introduction Moves

1. Describe the background of your study

- i. Introduce the general area of research
- ii. Establish the importance of this area of research
- iii. Identify critical evidence from the literature

Expanded version of the abstract!



2. Identify the gap(s)



3. Fill the gap(s)

- i. Introduce what this work did to address the gap
- ii. Summarize your key findings

From [Writing Like a Scientist](#)

Gap in a survey?

Moves

We should be able to identify your moves at the paragraph level, and the sentence level within a paragraph.

For more

- See examples on website.
- ~10 pages