Unit 13 / The Structure of the Paper

- Every research project is finalized with a written report on the whole process and the relevant findings.
- This final write-up is not simply the end of a process; it is an important complement throughout the research project, and an effective way to illustrate all the work that has been invested.
- Once the writing begins, a certain cycle of research activity is given substance and unanticipated clarity.
- Even though it involves no journal-like narration, the paper will attempt to tell the story of a particular research venture.
- It will explain how a concept evolved from speculation to experimentation to conviction.
- It will describe the obstacles that had to be managed, successfully or not.
- Ideally, the paper will present the acquired understanding from important lessons and outcomes.

Research Aims

What were you inspired to achieve?	
What problems did you expect to confront?	
What is it that makes the problems unique and interesting?	

The Scope of a Paper

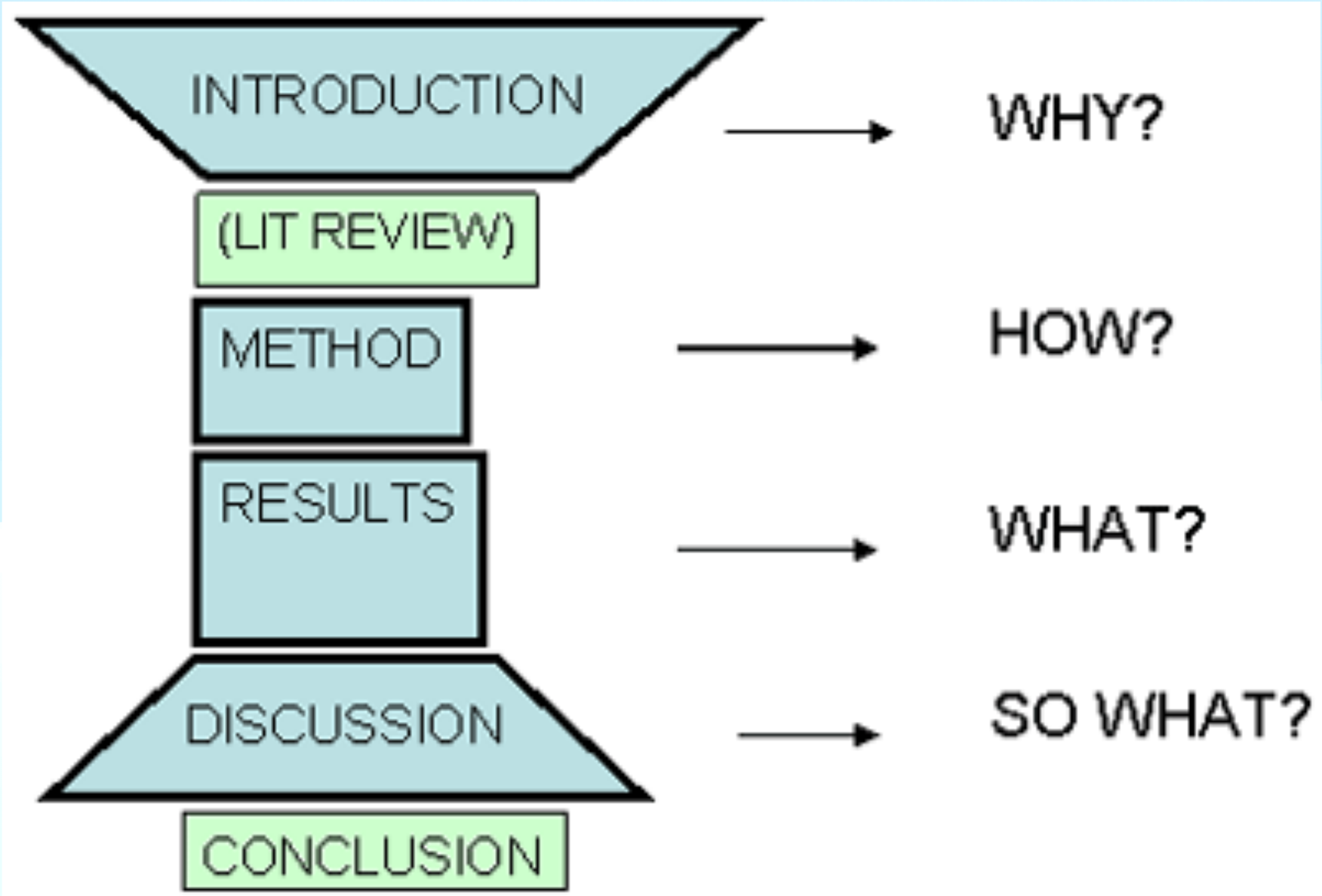
Which theoretical results are the most unexpected and surprising?	
Which one of these theoretical results seems solid enough to be adopted in future research?	
Will I present the new algorithm first and then describe previous algorithms to show how they differ from the current work? *or* Shall I set the context with the old approaches and then explain the contribution of the current work?	
What assumptions or definitions need to be explained before the main theoretical framework is presented?	
What is the relevant and pivotal background work that has to be discussed?	
Who is my readership? Field specialists, peers, or a general computer science audience?	

Evaluation Specifics and Formatting Restrictions

Specific Issue - Types of Metrics	
Considerations in Result / Evaluation	
Visual Means to Illustrate the Issue	
Audience’s Prior Knowledge or Background	
Venue Preferences for Scope of Work	
Venue Restrictions for Page Number	
Venue’s Specific Conventions	
Venue Preferences for Theoretical or Experimental Papers	
Will Your Code Be Available Online?	

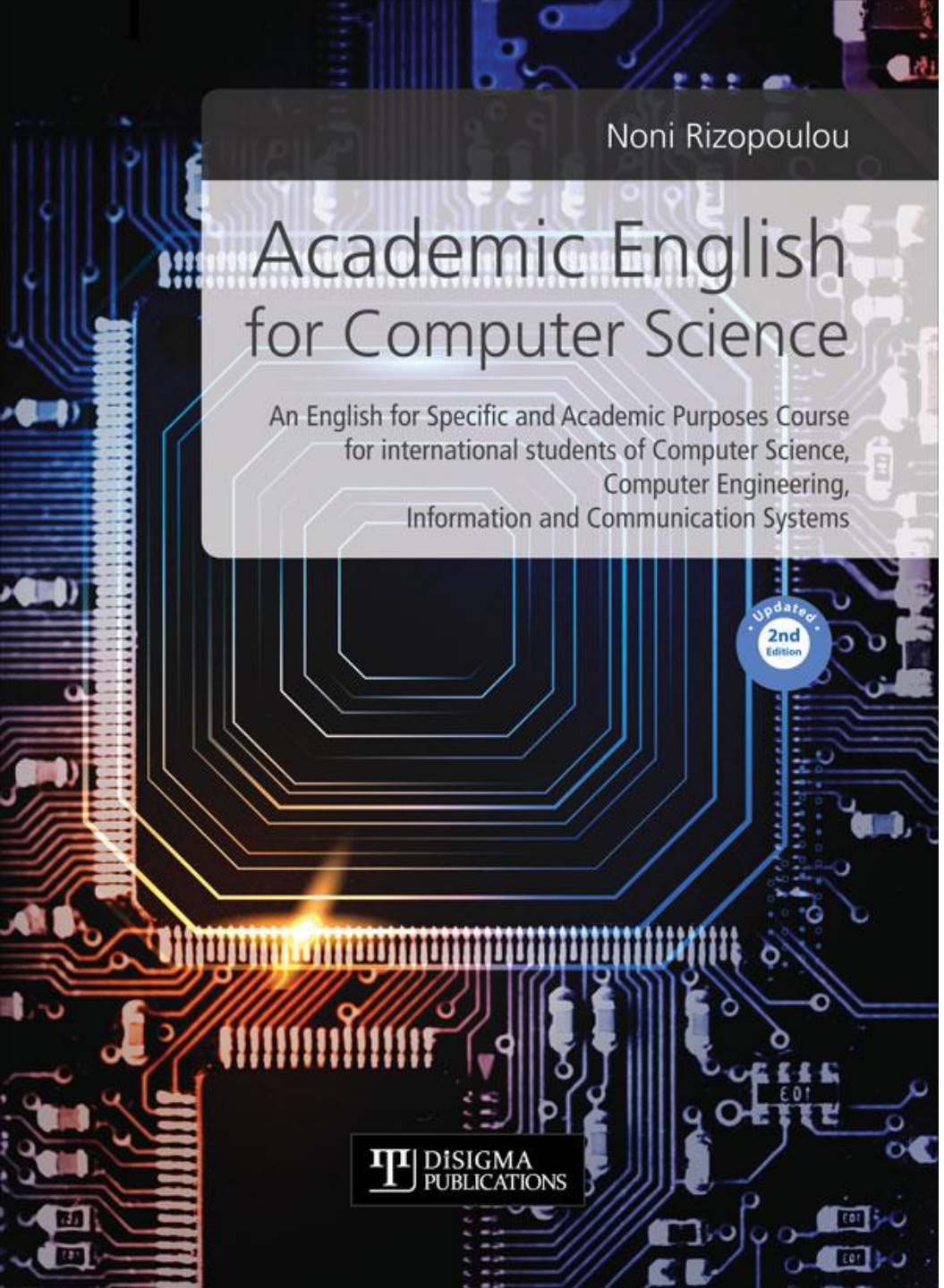
Rough Plan for the Paper

Describe the work and the general setting of related scientific knowledge	
State the main idea in the form of a theory or hypothesis	
Specify what is new about the idea, the paper’s major contribution, and the evaluation method	
Justify the theory by proof or by experiment or by some other suggested method	


INTRODUCTION
(LIT REVIEW)
METHOD
RESULTS
DISCUSSION
CONCLUSION
WHY?
HOW?
WHAT?
SO WHAT?

Preliminary Template for Technical Reports

Introduction: Subject - Purpose - Main Point - Significance - Background Information	
Methods and Materials: Overall Approach - Materials/System/Code/ Theorem - Step-by-Step Procedure - Limitations of Methodology	
Results 2-5 Major Findings	
Discussion 2-5 Major Understandings	
Conclusion: Purpose and Main Conclusion	
2-5 Major Interpretations	
Future Work	



Thank you for using material from the book

"***Academic English for Computer Science (2nd edition)***"
Noni Rizopoulou

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