

Academic Papers in the Sciences: Sequence and Purpose
 (Adapted from Lisa Emerson, “Mentoring Emerging Writers in the Sciences”)

Section	Questions Answered	What the writer is doing	What the reader is doing	Progress of the main idea
Introduction	What are the authors investigating and why? What does prior research show (or not show)?	Explaining what the puzzle/question is and why it matters to a discerning reader; developing expectations	Novice: Deciding whether or not to read the paper Expert: Assessing the validity of the question or “gap”	If x then y?
Methods	How did the authors conduct the study and why?	Explaining and justifying their approach to the question	Novice: Trying to follow the description Expert: Assessing the trustworthiness of the approach and comparing to other studies	How can we best test “if x then y”?
Results	What did the authors find?	Telling the story that clarifies/leads to their main idea	Novice: Trying to follow the data Expert: Allowing themselves to be persuaded or not; deciding what the results mean for them	Look! The data shows “if x then y!”
Discussion	What do the results mean?	Spells out how our understanding of the world has changed	Novice: Following the justification of the main idea Expert: Assessing the main idea	If x then y—so what? What then?
Conclusions	Where to from here?	Showing implications of the main idea	Passing judgment, deciding whether to take up an implication to pose as a question/puzzle to pursue	How might we follow up “if x then y”?