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Clear Thinking, Clear Communication.

Analysing an Argument Using a Structure Table

1. What is a Structure Table?

- A Structure Table is a way of visually organising information and the parts of an argument so that it can be critically analysed.
- You can download a blank A4 Structure Table for your use from the link on the "Tips & Hints" page at www.cognitrix.com.

Structure Table

Context and Importance/Value (Section A)		
Major or Principal Conclusion/Recommendation (Section B)		
Minor conclusions/recommendations (Section C)		
Assumptions, Suppositions and Speculations (Section F)	**Literature (Section E)**	**Data/Facts/Evidence (Section D)**

2. How do we use a Structure Table?

A Structure Table has two principal uses:

- Analysis or deconstruction of a paper or report; or
- Planning the logical argument of a paper or report.

In this tip, we'll look at how to use it for deconstructing the argument in a paper or report.

3. How to analyse/deconstruct a paper or report using a Structure Table.

- Skim and scan the material when analysing a paper or report. You are going through it to extract the argument and the information. You do not need to read every sentence.
- If something isn't obviously there, then leave it blank. It's the responsibility of the author(s) to make their points. It isn't your job to guess what the author(s) meant to say.

Steps in completing a Structure Table:

1. Section A: What is the context and why is this important? If the author(s) don't say, then leave this blank.
2. Section B: What is the single major or principal claim, conclusion or recommendation? If there isn't one or if there is more than one, then leave this blank.
3. Section C: What are the minor conclusions which the author(s) claim "add up" to the major conclusion/recommendation?
4. Section D: What are the facts? What was actually measured or observed?
5. Section E: What is quoted from other sources? Note that citations from other sources are given less weight than the actual data because:
   - the cited results could be incorrect;
   - the cited authors' interpretations could be incorrect; or
   - the present author(s) could be misrepresenting/misquoting the cited authors.

   Literature citations and other quoted sources are treated as provisional knowledge which is subject to correction or revision when new information becomes available.
6. Section F: What is implicitly or explicitly assumed to be true without any support? An assumption or supposition is any statement that is accepted as probable or true without any support at all. If the author(s) can't produce the data or a source, then treat it as an assumption.

4. What do we find when we analyse papers and reports?

Good papers and reports:

- ✔ Contain little or nothing in section F
- ✔ All necessary and sufficient evidence is contained in section D and nothing is missing.
- ✔ The relevant literature is cited in section E.
- ✔ All the minor conclusions in section C are supported by sections D and E.
- ✔ The minor conclusions "add up" to the principal conclusion in section B.
- ✔ The context and importance are explained in section A.

Weak papers and reports:

- ✗ Section A is empty because the context and importance are not explained. The author(s) are reporting work, but it isn't clear why it was worth doing, let alone being read.
- ✗ Section B has no conclusion. When there is no conclusion, then the paper is simply a collection of information and minor conclusions that don't add up to anything.
- ✗ Section B has a wrong conclusion. Sometimes the author(s) conclude X but the reasoning and/or data indicate that Y is the correct conclusion.
- ✗ Section B has a weak conclusion. Sometimes the author(s) conclude X which is reasonable but the evidence is insufficient to support the reasoning or major conclusion (the argument is weak). Additional evidence would need to be included to make the argument trustworthy.
- ✗ The author(s) claim that a piece of evidence shows X but careful inspection of the evidence either shows nothing of the kind (wishful thinking on the part of the authors) or it shows something completely different.
- ✗ Section F is filled with assumptions and speculations. Assumptions are the weak

points of all research. The larger and/or more numerous the assumptions, the more doubtful the reasoning. When the author(s) start suggesting that "the data or literature can be ignored because ..." then alarm bells should start ringing loudly. The author(s) are trying to rationalise a weak or indefensible argument. This often happens when a researcher has a "pet theory" which they refuse to give up and they try to bend everything so that it fits with what they want to believe.

