Cheatography

Reasoning Cheat Sheet by Natalie Moore (NatalieMoore) via cheatography.com/19119/cs/2396/

Analytical Structure Notes

To clearly express arguments / explanations need to think carefully about analytical structure

Can be tricky to simultaneously write a narrative flow and reason at same time. So need to plan work.

Planning can be done using the analytical structure format, getting good at this will make reasoning clearer and improve quality and readability of oral and written work.

Before starting anywhere near narrative flow start thinking about structure and logical connections between ideas.

Scope and Certainty

Scope

Size of the claim

Stating Numbers (all, most, some, many etc)

Geographical area (Brisbane, Aus, etc)

and/or Time (always, never, sometimes)

Certainty

Claimed probability (highly likely, virtually, some chance)

Be realistic with use of these because incorrect scope or certainty will make it easy to argue against your reasoning.

Descriptive and value claims

Value

Say things should or should be a certain way

Sometimes value is stated sometimes implied (hidden in tone and words)

Many, maybe all claims have value judgement

Descriptive

Things are or have been a certain way

Smart thinkers are alert to value judgements.



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Links between claims

Linking words are words which link the claims together, indicating the premises and the conclusions. They are hints of the mental process of linking.

https://www.dlsweb.rmit.edu.au/lsu/content/4_WritingSkills/writing_pdf/Linking%20words%20and%20phrases.pdf

Importance of internal connections

Need to evaluate reasoning, ensure all claims stand without needing further support or arguments, add new premises / sub arguments as necessary until argument is fully formed and reader can some to same conclusion without needing to seek out further information or not have whole story.

Do not assume readers know already anything in relation to your argument Ensure ideas within claims are introduced and supported

Five types of reasoning

| Causal | premises state the cause, and conclusion is effect |
|--------------------|--|
| Genera lisation | shows how knowledge about general class of events allows us to make a conclusion about a specific event in that class |
| Specific cases | Specific cases lead to a conclusion |
| Analogy | Draw a specific conclusion from specific premises via a comparison of like aspects |
| Terms | Some claims establish a definition or a particular meaning in a given context |

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Analytical structure steps

1. Decide conclusion. Write out carefully explaining exactly what you mean

2. Think about reasons for conclusion

- a Write them down as claims
- b Keep related premises together if possible
- c Everything must relate back to the conclusion
- d Claims need to make sense as own entity
- e Number your claims from 2 onward (conclusion is 1)
- f Focus on your main reasons for concusion

3. Draw diagram to show links between claims

- a Links to show how constructed
- b Line under groups of premises
- c Arrow to show premise to conclusion

4. Stop and Consider

- a Do I need anymore premises?
- b Am I missing any claims?
- c Are relationships how I want them?

5. Make changes and re-draw if nessessary

Important things to remember:

- Each claim must stand on own
- Do not include signals of reasoning in claims
- Each claim must imply links to other claims
- Do not be afraid to revise and rewrite.

Statements

Particular type of statement Assert some kind of "truth" about the world May actually be true or false Expresses belief or view about how world is or should be If you can ask "Is this true or false" it is a claim

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Drawing analytical structure

Narrative flow = words arranged into sentences and then divided into paragraphs Analytical structure = List of claims and a

diagram of how they relate to one another

Diagram

Linking words represented by the + signs

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Offers advantages

Clear way of constructing claims

Horizontal line groups the claims

How they relate to eachother

Avoids vagueness

Make claims own entity and so defeats
complex sentence formations

• Clarifies interesting writing to get to the premises and solutions

Can construct or deconstruct

After construction next step = add linking to create narrative flow

We need to see content and structure of reasoning to smarten own thinking.

Four levels of language

| Word | |
|-----------|--|
| Statement | A sentence can be made up of more than one statement |
| Text | Group of related statements |
| Context | Elements outside text to make it meaningful. |

Assumptions

Influence every argument / explanation. Values / ideas we take for granted. Smart thinkers recognise assumptions that surround us (including own)

Assumptions can be dangerous because they are not tested to see if they are correct.



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Conclusions and premises

Premise = claim that acts as reason Conclusion = claim that is being supported In reasoning, there is therefore always at least two claims (premise and conclusion) Fundamental skill of reasoning to be able to identify these in other peoples claims and own **Conclusions** When reasoning – first choose a conclusion Conclusion is not summary, but new statement Supports and gives a bit further information than the premises Truth of conclusion is clear because of

premises

Conclusions can be: Predictions, Appeals to action, Events in past

Premises

Any claim can work as a premise

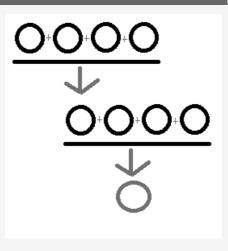
Has to support conclusion

Usually initially more acceptable than conclusion

. . .

May make a point, define a term, frame other premises

Analytical Structure Diagram



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Check your reasoning

| No circular reasoning | |
|---|---|
| Accurate scope and certainty accurate | |
| Avoid sweeping generalisations | |
| Value judgements in conclusion need mo than one premise, premises must suppor value judgement | |
| Consider surface and hidden meanings o words | f |
| Align choice of words with audience | |
| Consider possible interpretations | |
| No implied premises, if possible should be stated | е |
| Claims which have connections to the conclusion are relevant. Claims which har no connection to the conclusion are irrele vant. | |
| Dont assume people will fill in the gaps | |
| Think about context | |
| Well founded claim has a number of good premises | ł |
| Person with burden of proof needs a | |

Person with burden of proof needs a stronger argument