POJI

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- Four key elements of Discussion of Results
    - Presentation
    - Observation
    - Justification
    - Implication

Presentation

- Using visual contents to present your result clearly and meaningfully
  - E.g., Graphs, charts, tables
- Label them appropriately:
  - E.g., Figure 1, Figure 2, Table 1, Table 2
  - Provide a meaningful standalone caption for each
  - Provide legends appropriately
  - A person reading a Figure, for example, should be able to understand the Figure well by reading the Figure + caption, without having to read the text
- In the paper or manuscript, refer to those labels
  - Ideally, text mentioning visual contents should appear before visual contents

Observation

- Highlighting significant and meaningful patterns found in your visual contents
  - Trends, maxima, minima, outliers
  - (And *absence* of trends, etc.)
- Observation should be *accurate*, and should correspond to your visual contents
  - Provide regression values, for example, if needed to strengthen your observation
  - Provide t-test or other statistical tests to strengthen its significance
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Justification

- Explaining why the observed patterns occurred
  - (Also, why expected patterns were *not* observed)
- Avoid cyclic justification
  - **No**: "We observed the patterns because Figure 1 shows the increasing trend patterns."
- Some patterns could be expected because of our solution design
  - "This observed trend is to be expected, since …"
- Some patterns might be unexpected and require additional, further investigation
  - "Upon further investigation, we found …"
  - Reasons could be poor solution, flawed implementation, flawed experimental setup
  - Reasons could also be unanticipated emergent behavior due to complications brought forth through agent interactions, etc.

Implication

- Inferring from the justifications what they mean
  - Think about the bigger picture

- For example:
  - "We have validated our hypothesis. And thus, we conclude that …"
  - "We have not validated out hypothesis. Additional experiments are needed to ensure that our sample is not biased …"
  - "We have detected a software bug in our implementation. Thus, our next step is …"
  - "We have shown that X is true when the condition is Y. Now, we are ready to investigate whether X is true when the condition is Z, as part of our overall effort of investigating the behavior of X in conditions that are K."