Part 6: Writing a Good Response

When answering questions there are a number of things that help make a good response.

- Make sure you read numbers correctly off graphs
- Always link to the context
- Use specific quotes from the report to support your answer
- Use "common sense" to comment on key features
- Focus on specific claims being made and if the statistical processes described in the report support that claim
- A short, succinct and well supported answer is better than a lengthy, generic statement
- Integrate statistical and contextual knowledge in your response

When looking at a report there are a number of questions that are useful to think about:

- Is the report based on **sound research**? Find the original research article to determine this. Was it published in a reputable journal? Was it conducted by reputable researchers from a University or Research Institute for example? *Note: this can't be always done during an exam, but is worth doing when looking at articles that aren't in the exam.*
- Identify the **type of study** undertaken – poll, survey, experiment or observational study?
- Who **funded** the research? Did they have a vested interest in the outcome? For example, was it a drug company trying to compare their new drug over an existing treatment?
- Were reliable **data collection methods** used? If data was collected from the past or people's memories, how was accuracy checked? Could confounding variables have changed over time?
- **Who or what** was studied?
- How were the participants **selected**?
- What **measurements** were taken or what **questions** were asked and how? Are questions defined and responses provided? Are the measurements appropriate for the effect that is being observed? For example, is an IQ test an acceptable measure of intelligence. How were measurements taken – interview, online, questionnaire. Could this have had an impact on responses?
- **Where and when** were measurements taken or questions asked? Sometimes if measurements are taken in an unfamiliar setting for the participant, atypical responses can be observed. Some measurements will vary according to the time they are taken – morning/evening, summer/winter, weekend/weekday.
- Is the size of the observed effect **backed up with numbers** or just described? Is a claim made that Drug A reduces blood pressure OR that Drug A reduces blood pressure by 15%. Beware of unquantified claims.
- Are there any **confounding or lurking variables** that should be considered?
- Have the **results been extended** inappropriately?
- Is there **complete data**? Was non-response or missing data a problem?
- Do the results **make sense**? Is there a scientific or biological reason to support the evidence? Is there any alternative explanation.
- Are the results **convincing**? Would the results persuade you or someone you know to modify or change their behaviour?
- What is your **overall conclusion** about the research findings? Justify why the study was good or why it was not. Do other studies reveal similar findings? What further information about the study might be useful.