

BTEC Level 3 Applied Science Bridging Work: Critical Reading

An important part of being a scientist is to be able to look at information and articles presented to you and analyse them in an objective manner, looking for balance or bias, to identify omission of facts or information. This task will ask you to do just that.

1. When reading scientific literature, there are several factors that you should consider when evaluating its reliability. Some of these are listed below. Give a definition for each term:

- Bias
- Propaganda
- Errors in fact
- Errors in judgement or reasoning

2. Below are links to some news articles from July 2008 about the benefits of a Mediterranean-style diet that are all based on the same scientific papers. Read through each of the articles and as you do try to answer the questions below.

- Article 1: Diet that cuts risk of cancer (Daily Express)
<https://www.express.co.uk/news/uk/50677/Diet-that-cuts-risk-of-cancer>
- Article 2: Miracle Diet From the Med (The Independent) <https://www.independent.co.uk/life-style/health-and-families/health-news/miracle-diet-from-the-med-858318.html>
- Article 3: Mediterranean Diet Cuts Cancer Risk (The Telegraph)
<https://www.telegraph.co.uk/news/health/2229057/Mediterranean-diet-cuts-cancer-risk.html>
- Article 4: Mediterranean Diet Cuts Cancer (BBC News)
<http://news.bbc.co.uk/1/hi/health/7483164.stm>

- a) Can you see any evidence of bias, propaganda, errors in fact or judgement?
- b) Who carried out the research and where are they based?
- c) What sort of study did they carry out?
- d) How many subjects took part?
- e) What different conditions were tested?
- f) Were there any controls used?
- g) Who funded the research?
- h) Were there any possible conflicts of interest?
- i) What were the main findings of the research?
- j) What are the consequences of the research for the general public?
- k) Are there any limitations to the study carried out?

3. Write a short report to compare and contrast the different news articles and the way in which they have reported the science. You may wish to do this in the form of a table.
4. Now read the article from the NHS 'Behind the Headlines' section of their website (<https://www.nhs.uk/news/cancer/mediterranean-diet-cuts-cancer-risk/>) and try to answer the same questions from Task 2
5. Extension Task: You now may wish to read the original article from the British Journal of Cancer (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2453039/pdf/6604418a.pdf>) that these reports were all based on and have another attempt at answering the same questions.