

Case Study Three

Critique of Research Paper – Science*

Task Description: Complete a critique on a primary research paper that discusses proteins.

Weighting: 30%

Word Limit: 5,000 words (excluding figures and footnotes)

Level: Postgraduate first semester

Outline and Instructions:

A critique includes both the positive and negative aspects of the paper and an evaluation of the importance of the study's findings. A list of papers is provided as part of the courses' learning resources and students must work from that list.

Use the following outline as a guide to structure your written response:

Purpose and Context

- Explain the purpose and importance of the research presented in the paper.
- Include a short overview of the field to place the work in perspective
- Explain the function and significance of protein(s) or other biomolecule(s) that are the focus of the paper.
- Identify the research question/s provided by the author/s.

Research Methods and Results

- Explain the methods used and critique their appropriateness to the research question/s.
- Briefly explain the results from the paper and discuss their significance with respect to the original research question posed by the researchers.

Study Quality

- Apply a given set of indicators that helps you determine the rigour of this paper's methods and quality of the findings. How trustworthy are they?
- What are the limitations of the study?

Conclusions

- Include your opinion of the importance of this paper in contributing to the knowledge about proteins. Support your opinion with evidence.

Marking Criteria:

- Demonstrated understanding of the research process
- Suitability of chosen indicators to determine quality of the study
- The appropriate use of evidence from the paper to support your evaluation
- Presentation and structure of the written response

Submission: Turnitin and a hard copy at the school office

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Workshop Rebuild

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Identified Problem Areas:

- This piece is easy to contract to a professional contract cheating site or an advanced student or a family member.
- The highly-structured item may increase similarity, make contracting easier and make detection more difficult.
- Reflection is not required
- 30% is quite high-stakes – the balance of workload and weight may push students to cheat.
- This work is based on material available in the public domain, making contracting potentially easier and harder to detect.
- The submission focuses on a single supplied piece of work.
- Possible discrepancies between a copy submitted to Turnitin and a hard copy; no requirement specified for the two documents to be the same.

Benefits:

- Flexibility – students are provided with options in choice of research paper to be critiqued.
- Easy to update to prevent copying previous cohorts' work or using someone else's assignment.
- Turnitin is being used and it is effective in identifying the use of someone else's assignment and in some circumstances where the assessment task has been procured.

Redesign of Assessment Item:

The assessment item was redesigned to:

- Ensure there is a sequence of activities within the assessment task with a dependence on a prior component to engage students in learning and detect any changes in approach, style and voice e.g.
 - Conduct an in-class tutorial to address how to analyse the paper and how to write the required responses.
 - Supported in-class drafting work so students start the assessment task during class hours.
 - Include staged and structured assessment items that require checking of work in class to provide the best opportunity to reduce and identify contract misconduct.
- Create a range of nested assessment tasks that reflect a 'real world' approach.
- Ask students to do a 1 minute presentation to explain why they have chosen the paper of interest.
- Ask students to include a reflection about what they learned from the in-class drafting and discussions.
- Ask the students to present a viva at the end of term where they will be asked unexpected questions.
- Require students to present an annotated bibliography as part of their final submission.

- External students who have no face to face contact could record video of collaboration and work for verification and engage in web-cam facilitated interactive oral assessments.

A number of these nested assessment tasks require the student's learning and the assessment of that learning to be observed by people/fellow students other than just the marker, this can act as a deterrent to contract cheating.

- A simulation using a fictional protein and research paper could be used to exercise more control over the information available to the student, in order to reduce opportunities for contract cheating. However, this would undermine the authenticity of the task, as students would no longer need to access the literature databases to find their paper of interest and limit the value of the learning activity.
- Assessment design is important in supporting effective student learning. Its role in minimising contract cheating is subsidiary to this primary purpose.