

Assessment of Biology Senior Exercise Paper -08-09

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Student: _____

Reviewer: _____

Evaluate each of the 5 categories on a scale: **0 = F 1= D 2 = C 3 = B 4 = A**

1. Critical Analysis (particularly essay 1):

- Evaluates the study's model system, experimental design, and techniques.
- Describes study's results and how well they support its conclusions.
- Explores both strengths and weaknesses of the article
- Directly discusses actual data and figures from the article.
- Proposes alternate approaches, experiments, analyses or controls that could improve the study.
- Compares and contrasts methods and results to those of similar research articles.

Comments:

2. Synthetic ability (particularly essay 2):

- The article is placed in an appropriately broad, integrative biological context. The essay extends beyond the material covered in the introductory lecture course that the paper would fall into.
- The essay articulates why someone in another field would benefit from reading the article. It shows how the paper has influenced other fields or how it has been influenced by other fields.
- Primary literature is used as a foundation for integrating disciplines.
- The overall significance of the article is clearly described.

Comments:

3. Creative thinking (particularly essay 3):

- Important further research questions are identified.
- Appropriate experimental designs are proposed.
- Hypotheses are clearly stated, and results that would contradict or support hypotheses are proposed.
- Proposed experiments use methodologies and approaches different from the paper's.
- Possible experimental or interpretive difficulties are mentioned.
- Proposed experiments demonstrate an understanding of the relevant primary literature.

Comments:

4. Written skill (all 3 essays):

- Each essay is well organized.
- The writing is succinct, clear, and direct.
- Grammatical and spelling errors are absent.
- Proper citation format is used.

Comments:

5. Comprehension of material content (all 3 essays):

- Concepts are explained accurately.
- A deep understanding of the paper's research area is demonstrated.
- Primary literature is effectively used to support arguments. At least 10-15 primary research articles are incorporated into the essays.

Comments: