Out of the Writing Centre and Into the Classroom: Resource Package 2
(Partnering with and training subject matter experts)

Writing Lab Reports in Biology

PD Session: Developing Student Writing Skills

Learning Objectives:
By the end of this training session, you will be able to:

- Identify factors that hinder student success in biology writing
- Implement structured metacognitive skills development activities in order to improve student planning, monitoring and self-evaluation of their work
- Create instructional activities that enable students to use rubrics effectively
- Describe the main features of genre-based and academic literacies approaches to teaching writing skills
- Facilitate writing skills development by using structured text analysis activities
- Develop exercises for in-class writing skills instruction

Successful and Struggling Writers: What's the Difference?
What factors do you think distinguish students who are successful in their writing assignments from students who struggle to meet course requirements?

Successful Students	Struggling Students

Skills that Contribute to Student Success
In the context of first-year writing assignments, instruction in two key areas contributes to student success:
(1) Metacognitive strategies

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(2) Conventions of writing *as they relate to a specific discipline/task*

In this workshop, we will explore how to include these two key areas in structured in-class instruction to support student success.

Metacognition: How it Helps Learning

Metacognition is the ability to monitor one's own thinking processes. It involves actively monitoring one's own learning process, and making changes to one's learning strategies and behavior based on this knowledge.

Some definitions:

> *Metacognition: awareness or analysis of one's own learning or thinking processes (Merriam-Webster, 2018)*
>
> *Metacognition also includes self-regulation – the ability to orchestrate one's learning: to plan, monitor success, and correct errors when appropriate – all necessary for effective intentional learning…Metacognition also refers to the ability to reflect one's own performance (National Research Council, 2000)*
>
> *Students learn to monitor and direct their own progress, asking questions such as "What am I doing now? "Is it getting me anywhere?, "What else could I be doing instead?" This general megacognitive level helps students avoid persevering in unproductive approaches. (Perkins and Solomon, 1989)*

Students with strong metacognitive skills are able to plan, monitor, and evaluate their own learning. Students with weaker skills make errors such as:

- Failing to plan appropriately for each step of the assignment.
- Believing that their assignment meets instructor criteria while still making key errors.
- Failing to make changes in response to feedback received.

By contrast, students with stronger metacognitive skills are able to correctly identify what they need to do to be successful on the assignment, and to appropriately plan their work to meet key criteria. They monitor their strategies throughout the process, and make appropriate changes when needed. They are also able to more accurately identify when they have fully met the criteria required by the assignment.

Planning, Monitoring, Self-Evaluation

Metacognitive skills can be divided into three areas:

1) Planning: What do I need to do on this assignment? How am I going to do it?
2) Monitoring: Is what I am doing now leading me to my desired goal?
3) Evaluation: Did I successfully complete the assignment? How will this experience change how I approach a similar assignment in the future?

Facilitating Student Metacognition:

Considering the lab report task, what do you do as an instructor to facilitate student metacognition?

Planning	***Monitoring***	***Evaluation***

Metacognition in Lab Report Writing: Using the Rubric

A key strategy for supporting metacognitive skills development is teaching students to use rubrics as a tool to plan and monitor their work. The current lab report rubrics, along with the feedback/evaluation cycle, are well-shaped to support the development of metacognitive skills.

A key to encouraging student rubric use is to make the process explicit. This may include:

(1) Working through the rubric step-by-step, ensuring that students understand the terms well.
(2) Facilitating exercises where students mark student samples according to the criteria given on the rubric. After the students complete their grading process, share the grades you would assign, along with a rationale. Encourage students to evaluate the accuracy of their marking, considering the ways in which their evaluation diverged from their instructor.
(3) Encourage students to use the rubric to monitor their work during the editing stage of their writing process, before submitting a draft.
(4) As you are already doing, continue the practice of revising/resubmitting lab reports, responding to feedback. This process supports students in connect evaluation to continued revision of their own learning/writing processes.

Teaching Exercises: Developing Exercises for Promoting Metacognition Using Rubrics
In small groups, develop an exercise to:
(1) Introduce students to the use of a rubric before beginning their lab assignment.
(2) Have students grade a lab report section, provide a rationale, and compare their grading to the instructor. In this type of exercise, it is particularly effective to have students grade both a strong and a weak example.

Example Practice Rubric for a Lab Report Introduction

Introduction Element	Grade Assigned	Rationale for grade
Indicates the purpose of the experiment	_____/2	
Selects clear and relevant background information	_____/6	
Integrates information from sources appropriately, including correct use of APA in-text citations.	_____/2	

Sample Exercise: Evaluating an Integrative Reflective Discussion (from Nursing)
In this assignment, students are asked to integrate content from the Nursing literature with reflection on their own emerging professional identity. After discussion on the nature of the reading and reflection required for the assignment, students evaluated two writing samples, providing a rationale for their score.
Consider the following two examples of paragraphs in a professional identity paper:

"Novice professionals in any discipline begin to form a sense of professional identity as their education and training begins" (Author, year, p.). While I consider that my professional identity is still in the beginning stages of development, the past few months alone have resulted "in an individual thinking, acting, and feeling like a nurse" (author, year, p.). My goal is clear: become a registered nurse and love what I do. "You may never have an inflated salary but if you love the job, you'll be one of the richest people on the planet" (author, year, p.).	Working together as a team is a key component in the delivery of patient care (Smith, 2018). If interprofessional skills are not developed to their full potential it can lead to lack of collaboration and it can cause conflict among health professionals on the team (Jones, 2018). I have been able to observe the strength and benefits of a team approach to care over the past 3 months in my nursing practice experience. As I continue to develop my own professional identity the importance of collaboration in everything I do has been emphasized and will be a key component of

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	what I need to continue to develop throughout the upcoming semesters of the nursing program.

How effective is each as an example of an integrated discussion?

Selects key themes from the literature (2 or more sources) and presents these in an integrated manner?	Score: _____/4 Rationale:	Score: _____/4 Rationale:
Reflects on current practice in light of the literature and identifies areas for continued development.	Score: _____/4 Rationale:	Score: _____/4 Rationale:

BIOL 1110 Lab Report Rubrics

ORIGINAL INTRODUCTION – CONTENT				
Introduction /16	Purpose/objective of the experiment	0 Does not state the purpose of the experiment	1 Purpose of experiment unclear	2 Clearly states the purpose of the experiment
	Background information for blackworms	0 1 Little to no background provided	2 3 4 Insufficient or irrelevant background is given	5 6 Clear and relevant supporting background information: • Introduce what blackworms are • Reasons why blackworms were chosen as the model organism • Brief description of how blackworms closed circulatory system works
	Relevant background information for chemicals tested in the experiment	0 No background provided	1 Insufficient or irrelevant background is given	2 Clear and relevant background information given for why these chemicals were chosen for this particular experiment
	Prediction	0 No prediction provided	1 Prediction lacks clarity or incomplete	2 Provides a clear prediction based on background information
	Hypotheses	0 No hypotheses provided	1 2 Hypotheses lack clarity or incomplete	3 4 Clearly states the null (H_0) and alternative (H_A) hypotheses and includes: • Name of organism (common and Scientific name) • Name of variable being manipulated (independent variable) • Clearly state the dependent variable (response that will be measured) • Appropriate units for the measurement of dependent variable.

PRESENTATION AND REFERENCES

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Presentation and References /8	Writing Structure	0 • The sentences lack clarity and/or have spelling/grammatical errors that inhibit understanding. • Ideas are disorganized	1 2 • Some sentences have spelling/grammar errors • Ideas are not well organized and hard to follow and/or not separated into paragraphs	3 4 • The sentences are clear and grammar/spelling is correct • Ideas are well organized and easy to follow and separated into paragraphs • Double spaced
	In text-citations	0 Missing citations or rarely provides appropriate citations.	1 Generally appropriate use of citations.	2 Consistently provides appropriate citations in the proper format.
	List of References	0 Missing reference	1 Missing one or more appropriate reference(s) and/or inappropriate or inconsistent format	2 Appropriate references in the proper format
TOTAL MARKS				
Overall Total /24	Comments :			

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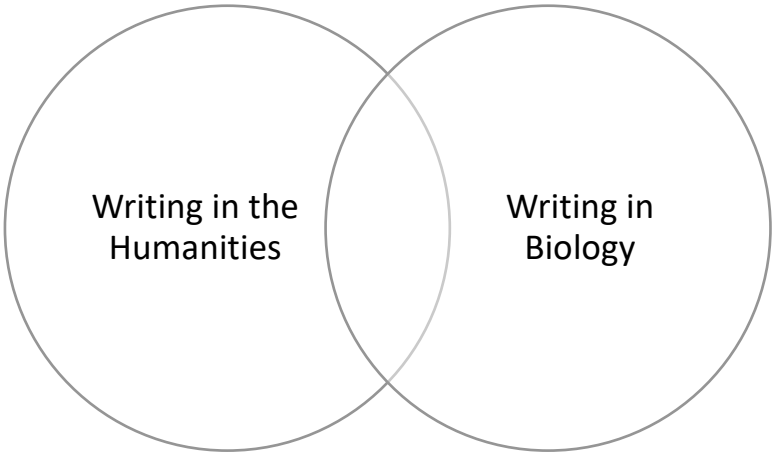
Facilitating Writing Skills Development
How is writing in biology different from writing in the humanities?



Why do these differences exist?

Principles for Supporting Student Writing Development

- The way we use language in any academic discipline is governed by conventions specific to that discipline. Every academic or professional community communicates in its own way. Biology students are new members to this language community, and do not yet know its conventions. In an undergraduate context, a major instructional task is to "apprentice" students – helping them come to know how to communicate successfully as a member of your academic community.
- Various theories of language and literacy use different terminology/frameworks to accomplish this task (eg. Genre theory, systemic functional linguistics, academic literacies).
    - For example, writing instruction based on systemic functional linguistics trains students to analyze writing, breaking it down by field, tenor, and mode. (https://cdn.cp.adobe.io/content/2/video/fe10397f-f374-41f3-be40-980b325629b5/embed?api_key=MarvelCP1)
        - Field: The subject matter of the text.
        - Tenor: The relationship between author and audience.
        - Mode: How the text is constructed.
    - How would this apply to a lab report?

	Field	**Tenor**	**Mode**
How would I describe a lab report in this dimension?			
What conventions/ expectations for			

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writing are related to this dimension of language?			

- Text analysis can be a powerful tool to help students recognize these dimensions, and begin to accurately implement these conventions in their writing.

Developing Exercises to Support Growth of Proficient Communicators in Biology
The next step in our work together will be to develop exercises that support students in the two key tasks we have identified above:

- Applying metacognitive skills to their work
- Analyzing the features of writing in biology to discover the conventions they will apply to their own writing.

We will begin with a shell the includes exercises in the above areas, along with information on other key areas related to the lab report writing task (e.g. reading journal articles, self-editing). Our goal will be to develop a set of learning materials that can be used in first year biology classes. Beginning with the "shell" of available materials, this will involve:

- Choosing an undergraduate lab report to include as the "text" that students deconstruct and analyze throughout the workshop activities. Ideally, texts for workshops:
    - Are from a single lab report at the undergraduate level that is not currently assigned in the class.
    - Include examples of both "strong" and "weak" texts.

Notes on exercises:

References

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National Research Council. (2000). *How people learn: Brain, mind, experience, and school*. Washington, DC: National Academies Press.

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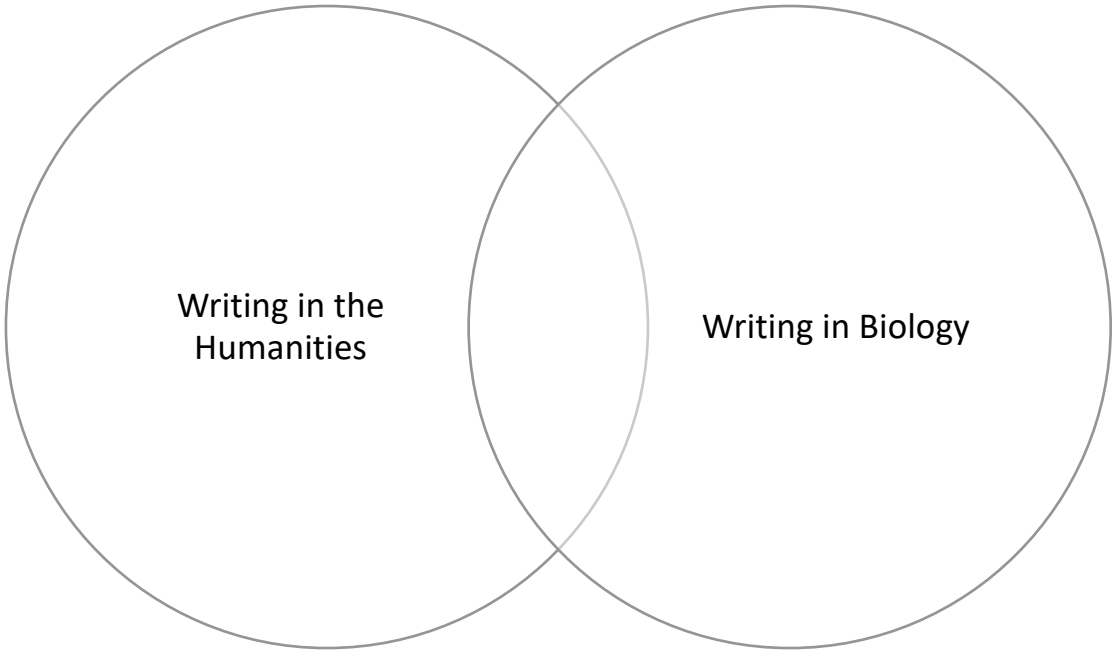
Writing the Results and Discussion Sections of a Lab Report (Instructor Developed Materials by Korri Thorlacius, Melissa Bodner, and Dawne McLeod)

Learning Objectives:

- Describe the content and organization of a results and discussion section
- Distinguish between the content of a results and discussion section
- Analyze your key findings (*i.e.* do your 95% C.I.'s overlap or not?) and understand what they mean.
- Integrate data values into a description of the major trends, using correct scientific conventions.
- Communicate findings in a clear figure.
- Interpret your results with respect to your original hypothesis (reject or fail to reject null H_0) and state the supported hypothesis (H_0 or H_A) using appropriate scientific language.
- Identify and communicate potential sources of error and any effect they may have had on the experiment.
- Identify interesting and novel future experiments based off of your findings.

Learning to Write Scientifically

Your learning in the laboratory component of Biology 1110 includes becoming an effective communicator in the field of biology. In Biology 1110 we will focus on analyzing and interpreting data and communicating your findings in the results and discussion section. These materials are designed to support your writing assignments in this course. You will be asked to critically read examples of undergraduate biology writing, and apply the principles you discover to your own writing. You will also complete exercises to sharpen your understanding of the required conventions. How is writing in biology different from writing in the humanities? Brainstorm with your partner/group and list the differences below.



What is a results section?

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What is the purpose of a results section?

How might scientists use a results section to communicate their findings?

The results section reports the experimental findings (i.e. the effect of the independent variable on the dependent variable that you measured in the experiment) using tables, figures (graphs, diagrams, and/or photographs) and written text. The written text includes a description of the tables and figures, and should identify any important trends. Integrating the data values (e.g. mean and 95% C.I.'s) into the description of the trends is a key element of an effective results section.

What happened?

Summarize the most important results in words that reflect your scientific understanding. What did you find out? (Include key quantitative results with the correct uncertainties, units, and significant figures, or trends.) All tables and figures (graphs, diagrams, and/or photographs) should be numbered and labeled to allow for quick reference and so you can refer to them in the text of your results. The results section may also include sample calculations (or these may be added as an appendix); follow the instructions in your lab manual for placement. Every experiment that is properly executed tells us something even if it is not what you specifically intended to find out. In the results section **DO NOT** include an interpretation of the results, any discussion about why the experiment was performed, or any expectations or opinions.

Analyze a results section

Use the Assignment Rubric

A key resource in analyzing your assignment is the rubric. The rubric provides detailed information about how your instructor will grade your lab. Understanding the rubric, along with the assignment guidelines in the lab manual, are a key component of understanding your assignment and knowing what you must do to be successful. In these exercises you will use the rubric to evaluate examples of effective and ineffective results sections.

1. How can you use a rubric before you begin writing?

2. How can you use a rubric when editing your work?

BIOL 1110 Results Section Rubric

RESULTS				
Results /10	Written summary of results	0 No written summary	1 2 Incomplete or unclear summary or includes information that belongs in a Discussion section	3 4 Clear, complete and concise summary of the results of the experiment that includes: • Describes the trend observed in the data • Mean pulse rate ±95% C.I. for the control and both treatment groups • Incorporates the mean pulse rate ±95% C.I for each group as you describe the trend
	Figure	0 No figure	1 2 Incomplete figure or missing one or more of the required component(s)	3 4 Clear and complete graph prepared in excel: • Descriptive caption located below the figure • Properly labelled axes • Appropriately numbered figure • Data graphed correctly

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	Refer to tables and figures in the written text	0 Did not refer to figure and/or table	1 Referred to some figures and/or tables	2 Referred to all figures and/or tables appropriately

PRESENTATION				
Presentation /4	Writing Structure	0 • The sentences lack clarity and/or have spelling/grammatical errors that inhibit understanding. • Ideas are disorganized.	1 2 • Some sentences have spelling/grammar errors. • Ideas are not well organized and hard to follow.	3 4 • The sentences are clear and grammar/spelling is correct. • Ideas are well organized and easy to follow. • Does not contain parts that belong in the intro or methods • Format of the mean pulse rate and 95% C.I. (with units) are reported in the correct format • Double spaced

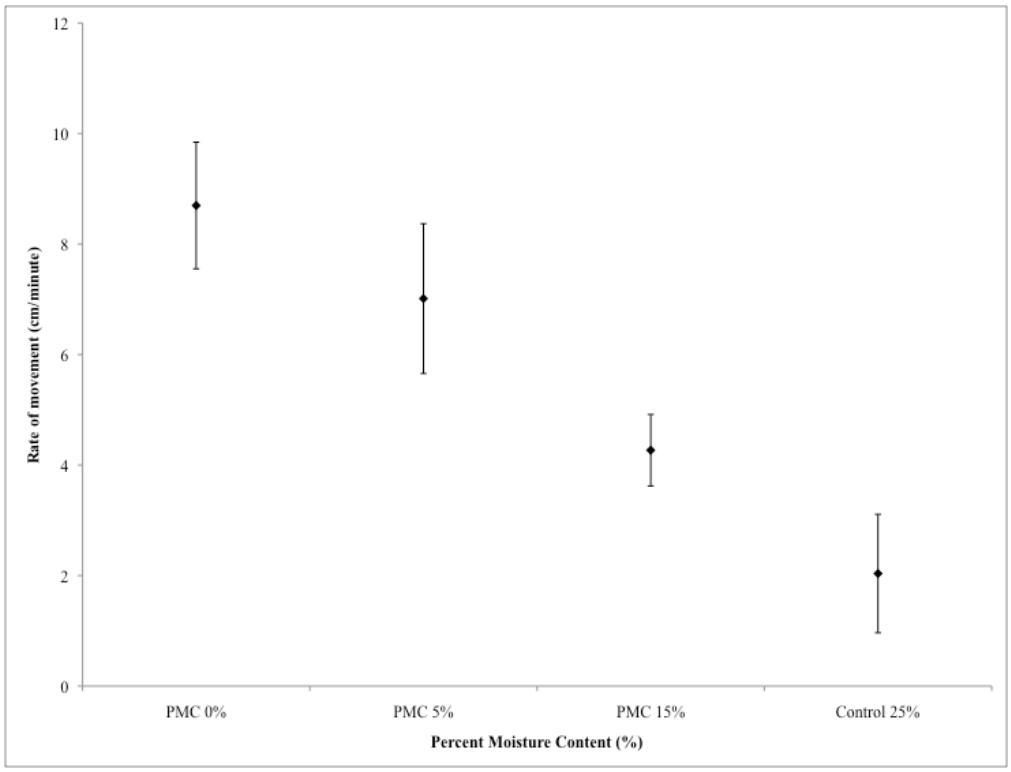
Activity: Analyze a results section

Review the example results sections below, which demonstrate effective and ineffective writing. Read both sections, then assign each a grade using the rubric provided above.

Lab: The Effect of Soil Moisture on Rate of Movement in Red Earthworms (*Lumbricus rubellus)*

Results (Example A)

The rate of burrowing in *Lumbricus rubellus* decreased as the percent moisture content of the soil increased (Figure 1). The mean rate of movement was highest in the dry soil (0% moisture), at 8.85 cm/minute ± 1.5 (95% C.I.) and at 5% moisture content (7.85 cm/minute ± 1.36). The mean rate of movement decreased



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at 15% moisture (4.75 cm/minute ± 0.65), and was slowest in the control of 25% moisture content (2.2 cm/minute ± 1.07).

Figure 1. Mean rate of movement (cm/minute) of *L. rubellus* in soils with different percent moisture contents: 0%, 5%, 15%, and 25% (control). Error bars represent 95% confidence intervals of the mean (n=20).

Now, review a second example of a student lab report.

Results (Example B)

This was truly an interesting experiment which we studied to see about the scientific method and worms burrowing in soils of differing moistures. The average of treatment 1 was 8.85. The mean of treatment 2 was 7.85, treatment 3 was 4.75 and the control was 2.2. The variance of treatment 1 was 6.6, treatment 2 was 9.2, treatment 3 was 2.1, and controlled group was 5.7. The standard of treatment 1 was 2.6, treatment 2 was 3.0, treatment 3 was 1.4, and control group was 2.4.The 95% CI of treatment 1 was 1.5, treatment 2 was 1.36, treatment 3 was 0.65 and the control was 1.07 cm per min. The movement was lowest in the control and highest in treatment 1. Figure 1 shows a graph of the data.

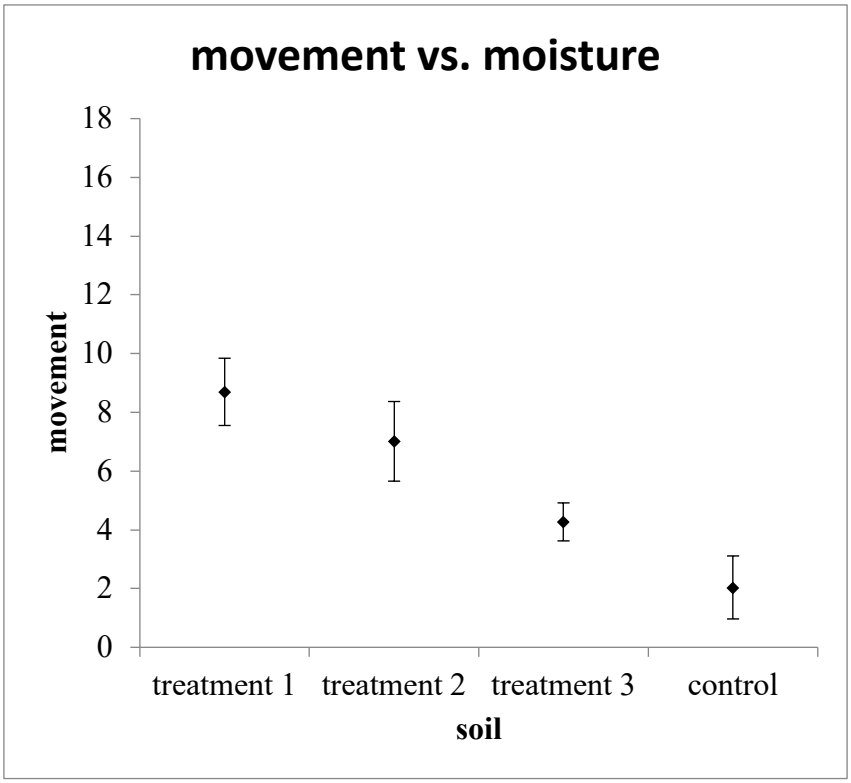

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fig. 1 movement vs. soil moisture in red earthworms treatments and control

Referring to the rubric, assign a grade to each result section. Include a brief rationale for your grade. Where there any components that were missing, incorrect or incomplete?

	A	B
Written Summary (/4)		
Figure (/4)		
Refer to tables and figures in the written text (/2)		
Presentation/Writing Structure (/4)		

Answer the following questions, referring to the assignment rubric on page 3.

1. Compare the reporting of results and trends in Example A and B. Which is easier to understand? Why?

2. How could the mean and the 95% C.I. be more effectively integrated into the results section in Example B?

3. How does the author refer to the figures in each example? Which is more effective?

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4. Revise the labels on the Example B figure to increase their clarity and effectiveness.

5. What information is important to include in a figure caption?

6. Compare the formality of Examples A and B. Which one is a better example of the appropriate tone of scientific writing?

Activity – Writing effective captions for tables and figures

Identify the problem with each of the following captions:

Title	Problem
Table 1 The Relationship Between Light and Hormones and Germination of Light-Sensitive Lettuce Seeds	
Table 1 Table of interaction between light and hormones in the germination of light-sensitive lettuce seeds	
Table 1 Seed germination data	

(Adapted from Knisely, 2009)

Consider the following captions:

Table 1. Interaction between light and hormones in the germination of light-sensitive lettuce seeds.

What makes this a good table caption?

Write a caption for the figure in your blackworm lab report, following the criteria you have identified in the exercises above.

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Write a discussion section

This is the most important section of your report. This is where you restate your hypothesis (or prediction), using the correct scientific language, and give a detailed account of what happened in the experiment. Did it support your hypothesis or not? Your instructors want to see that you understand the science behind the experiment.

The discussion section is where you interpret your results and draw conclusions using the data analyzed, and the resulting tables and figures, as well as background information.

You will need to compare your results to expected values – calculated from or found in the literature (expect to do some research in the library and include citations). It is also important to include an explanation of any unexpected results.

Possible reasons for unexpected results might be:

- Human error (e.g. errors when following the procedure, errors in preparing solutions).
- Small sample size or differences due to biological variation
- Results were too variable to draw clear conclusions (Knisely, 2009)

However, there may be a more interesting scientific explanation for the results that you found. Think carefully about this before attributing unusual results to "human error". Make sure to record any error you make, as you must discuss in detail the impact this error had on your results using your scientific knowledge. You will also want to discuss how you would go about testing any explanations you give for unexpected results. Lastly, you will want to identify the questions and future experiments you might want to investigate next.

Note: For your assignment in Biology 1110 you will not be writing a full discussion. Instead, you will focus on writing three key components of the discussion including: 1) interpreting your findings and relating them back to the hypotheses, 2) identifying potential sources of error and ways to improve experimental design, and 3) potential future experiments.

Distinguish between results and discussion sections

Results and discussion sections include different information; each has a distinct purpose. Read the descriptions of a results section (page 1) and discussion section (page 9). In the chart below, list the differences between these sections.

Results	Discussion

Analyze discussion sections

Review the discussion sections below. Read both sections, then assign each a grade and rationale using the checklist on page 12.

Discussion (Example A)

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The objective of this experiment was to determine whether the rate of movement of earthworms (*L. rubellus*) differed in soils with moisture levels ranging from 0-25%. The results of our experiment allow us to reject the null hypothesis because the 95% confidence intervals of the control (25% PMC) mean do not overlap with the confidence intervals of the drier soil treatment groups (0%, 5%, and 15% PMC). We provide support for the alternative hypothesis, which states percent soil moisture content (PMC) will have an effect on the movement rate (cm/minute) of red earthworms (*Lumbricus rubellus).*

Shakir & Dindal (1997) determined the optimal moisture content of soil to be 20-35% for earthworms. At higher, more optimal moisture levels, earthworms spent more time feeding and less time burrowing (Perreault &Whalen, 2006). When soils were drier, the worms burrowed through a larger area, likely pushing soil particles aside without feeding (Perreault & Whalen, 2006). Our findings are consistent with these results, as worms were much faster in the drier soils, which would not be as ideal for feeding. These findings suggest earthworms burrow away from dry, uninhabitable soils to spend more time in wet, nutrient-rich soils.

One main source of error in this experiment was that soil moisture content was not consistent throughout the separate replicates. Dissipation of moisture occurred when the container was opened throughout the experiment. Some other environmental variables that may have differed slightly between treatments included: light level, temperature, compactness of the soil and soil pH. In addition, biological variation between the worms may affect the results as well as the hunger level of the worms. Future studies may benefit from using worms of a similar size and age that have been fed on the same regime prior to the experiment. Additional studies could expand on the results of this experiment by studying the impact of less movement in wetter compared to drier soils. For example, it could be beneficial to determine if the faster movements and lack of feeding in drier soils affects formation and distribution of the burrows and the microbial communities in the soil.

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Overall, we expected soil moisture to have an impact on the movement of earthworms, with lower moisture content resulting in faster movements. Our results support our original prediction: worms moved faster in drier soils and were slower in wetter soils. Movement may be influenced by the feeding behaviour of worms in dry versus wet soils, which could have large implications for soil ecology.

Example B:

The average of treatment 1 was 8.85, for treatment 2 it was 7.85, for treatment 3 it was 4.75 and for the control it was 2.2, meaning the movement was highest in the treatment 1. The confidence intervals don't overlap and so we made the decision to reject the null hypothesis. Because we reject the null we prove the alternative hypothesis, which is wetness will increase the movement of red earthworms. We found that the worms moved more in the dry soil like the other study. The worms are hungrier in wetter soils and move less. This proves drier soil was better for the worm, because they moved more.

One main source of error in this experiment was human error. The student could have started the stopwatch late or ended it early. We could have added too much water to one of the boxes or made an error calculating the cm/min. When we were wetting one of the boxes one of the students spilled some of the water making the soil less moist. A future experiment would be to use more worms and do more replicates to make the experiment valid. Overall, I thought my group did a good job working together and we learned a lot about how to make an experiment and do calculations.

	Example A /3	Example B /3	**Rationale** (why did you give these grades?)
Restates the purpose of the experiment			
Summary of the findings includes			

whether the 95% C.I.'s of the treatment groups overlap with the control			
States whether the experimenter rejects or fails to reject the null hypothesis			
Restates the supported hypothesis			
Compares findings to those in the literature and cites sources correctly			
Discusses errors and their potential to influence results			
Includes relevant suggestions for future experiments			
Concluding statement summarizes main findings			

Example B has major weaknesses: (1) inappropriate language use – the language is not scientific (2) information from sources is not integrated into the discussion, resulting in incorrect conclusions, and (3) lists hypothetical sources of error.

1. Identify three examples of informal language that require revision.

2. What problems do you find with the rationale for the findings in example B? What information is needed to improve the first paragraph of this discussion?

3. Compare and contrast the sources of error in the two examples. What do you notice in each?

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Present your findings scientifically

Presenting your findings requires appropriate formality, as well as attention to the academic conventions for scientific papers. Assign a grade to each of the two examples you have read using typical presentation criteria for a lab report.

Presentation	Example A /5	Example B /5
Sentences are clear and spelling/grammar are correct		
Ideas are well organized and easy to follow		
Double spaced; paragraphs are correctly formatted		
Uses an appropriate level of formality for an academic scientific paper		

Activity –Addressing the Hypotheses in a Discussion Section

Consider the following sentence:
"These results prove that my hypothesis is correct".

1. Why is this sentence problematic?

2. How could you revise this sentence to make it more effective?

Note the convention for presenting the null and alternative hypothesis below:

Null hypothesis (H_0): Temperature will have no effect on the pulse rate, measured in beats per minute, of mice (*Mus musculus*).

Alternative hypothesis (H_A): Temperature will have an effect on the pulse rate, measured in beats per minute, of mice (*Mus musculus*).

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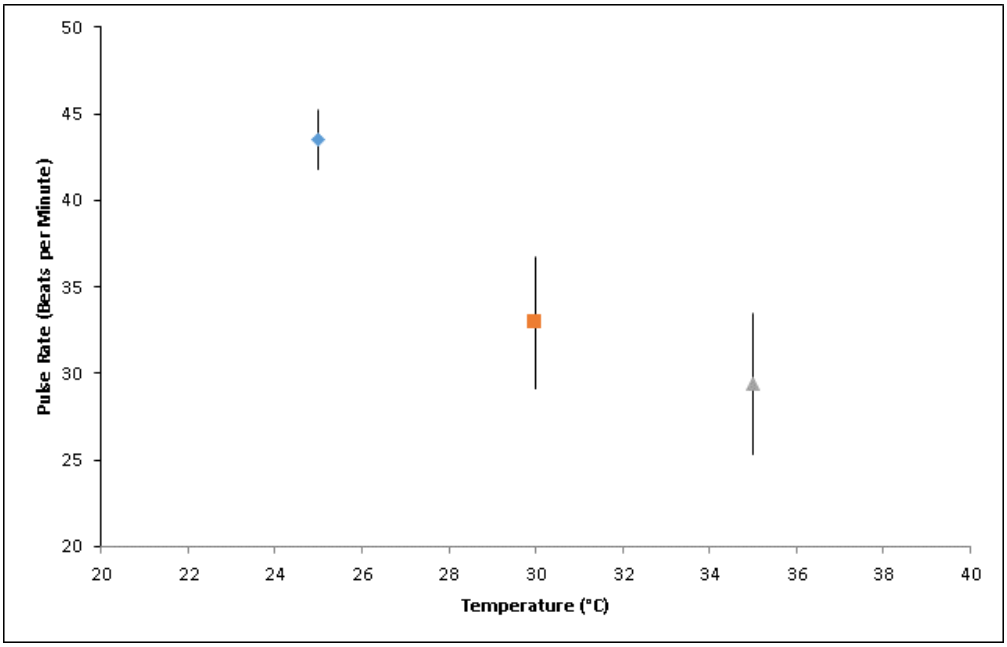

Figure 1. Mean rate of pulse rate (beats/minute) of *M. musculus* at 25°C (control), 30°C, and 35°C. Error bars represent 95% confidence intervals of the mean (n=20).

Example A

The sentences below reflect how the hypothesis might be addressed in a discussion section.

The results of our experiment allow us to reject the null hypothesis because the 95% C.I. of the control (25°C) do not overlap with the C.I. of the 30°C and 35°C treatments. We provide support for the alternative hypothesis: temperature will have an effect on the pulse rate, measured in beats per minute, of mice (*Mus musculus*). We can conclude that temperature has an effect on the pulse rate in mice (*Mus musculus),* because the average pulse rate of mice is noticeably different at both 30°C and 35°C than the control at 25°C. Now, review the poorly written example below.

Example B

The confidence intervals don't overlap, and so we made the decision to dismiss the null hypothesis. Because we do not support the null we prove the alternative hypothesis, which is that temperature will have no change on the pulse rate in mice.

Answer the following questions.

1. Compare how the authors discuss the overlap of C.I.'s in Example A and B. Which is easier to understand? Why?

2. Compare the use of scientific language when discussing the hypotheses (i.e. the use of *reject* and *fail to reject,* etc.). Which example follows the appropriate scientific conventions? Why?

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3. When restating the supported hypothesis what information is important to include?

Reflect on your learning

1. The most important thing I learned in this workshop today is…

2. Because of what I learned, I am going to…

3. One question I still have about this is…

References

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