Reflexes + Reactions Report.

Source for writing format:

- Lab manual page 65.
- " " " 41 + 42
- website: sciencerocks.ca
  - Tab: writing a scientific report.

- Title: descriptive title.

Abstract

- write at end.
  - what you did, why you did it, how you did it + what you found in a brief.

Introduction

- Background information
  - general - nervous system
    - ↓
    - specific - structure & physiology involved in reflexes + reactions.

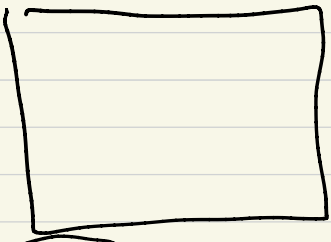


Fig. 1 - a patellar reflex arc. (Saladin 2014)

↓ Purpose

- Hypotheses = 3.

1) patellar reflex w or w/o OH.
2) Reactions with dom + non-dom hands
3) Reactions to 3 cues: visual, auditory, + tactile

Use Topic sentences + transitions.

- We Tested our hypotheses using the methods in our lab manual (McIntyre 2017).

Materials + Methods

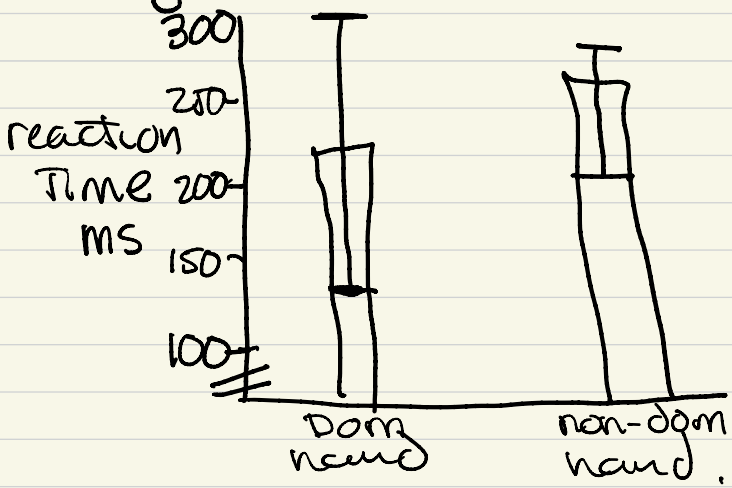
- We used sections ..... (McIntyre 2017).

exceptions - data previously collected....

Results

Fig. 2. Title. The effect of ___ on ___
n=

Fig. 1 TITLE



X-axis Title.

summary of results

- The class average of catch ... . with dominant hand was ____, and the range was _____ (fig. 2).

Discussion

First discuss whether your hypotheses were supported.

Then discuss why did we get these results? What is the neurophysiology behind these results?

- What you think the results should have been based on literature about these kinds of tests.

References

- Alphabetical order
- Harvard style (see manual, website)

Your report

- double spaced
- abstract - ½ page ~ 150 words.
- Introduction - 1½ to 2 pages
- m+m - ⅓ page.
- results - 2-4 pages
- Discussion ~ 1½ to 2 pages

Term Project.

1. Interest in animal behavioural responses to environment.
2. Importance: Tolerance of animals to abiotic conditions which may be changing. Salinity, pH, temperature, intertidal composition...
3. Make observations -
   - Literature report.
   - In the field
   - Talk to other researchers.

- What is already known?
- What Q's need to be asked?

- (Q1) How does temperature affect Brine shrimp metabolism?

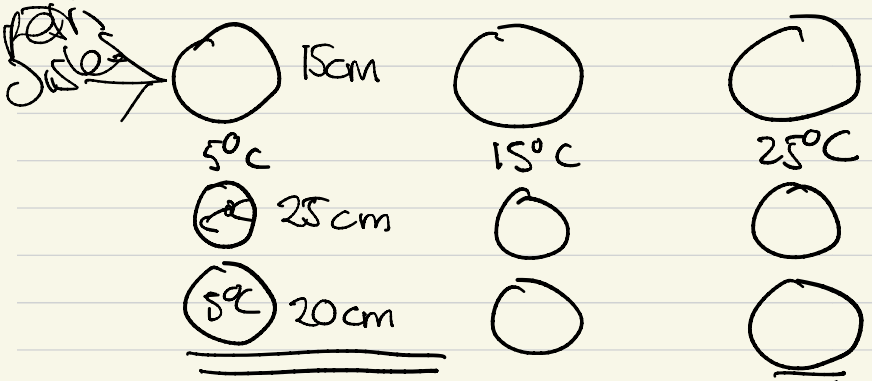
- Response must be something we can measure.

- measured response.

- preference " = choice experiment.

- (Q2) What levels of temperature do the animals prefer?

(Q1) we place the animals in 3 different environments



$\bar{X}_1 = 20cm$ $\bar{X}_2 = 60cm$ $\bar{X}_3$ 10cm

$\bar{X}$ = mean

H_0: $\bar{X}_1 = \bar{X}_2 = \bar{X}_3$

H_A: $\bar{X}_1 \neq \bar{X}_2 \neq \bar{X}_3$

If temperature is higher, then the animals will ↑ in speed, because they are looking for an ideal temperature.

Choice: H_0 = There is no preference & ...

H_A: The animals prefer _____ because _____.

Hypotheses must be testable.

You decide: choice experiment or response.

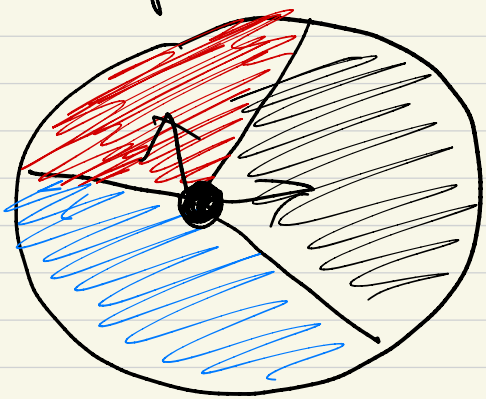
" : variable of interest

Is it Temp, salinity, O_2, pH. Light,

- Decide: What will treatment levels be? within the tolerance of animal.

- Decide on # of animals.

(2) choice expT. = 15 animals.



- How long will you give the animal to make the choice.
- Place the animal in centre facing different directions.

PAGE 57 - OUTLINE OF YOUR EXPERIMENT.

Then prepare your proposal. PAGE 63+64.

DO in powerpoint or similar program.

- Proposal on your own or with a partner.

- CONDUCTING EXPERIMENT.

- You will be working on your own, but if partnered can divide the data collection.

Example & response expt on page 59.

Example & data Table for choice experiment on Page 62.