

# College Writing Seminar (INTD100): Week 4 Notes

---

Jordan Hanson

October 19, 2022

Whittier College Department of Physics and Astronomy

## Summary

---

# Summary

**Week 4: *Technical description II*:** We will focus in Week 4 on the passage of time, and describing technically procedures in the passive voice.

1. Exercises: write about a simple experiment you perform at home with household items in the present tense, and then change the writing to passive voice.
2. Exercises: write about a simple experiment you perform at home with household items, and practice removing the subject pronouns.
3. Homeworks: describe a personal achievement you experienced in high school, but include ample usage of passive voice and technical descriptive language.
4. Midterm: The midterm will be due at the end of Week 4, involving a take-home style exam testing what concepts the student has gained up to this point.

## Review of Tense and Person

---

# Review of Tense and Person

Provide the correct associate of letters to numbers in the following lists.

- |  |                    |
|--|--------------------|
| 1. "You measure the temperature of the mixture with the thermometer and procede once you see 10 degree Celsius." | • A: First person  |
|  | • B: Third person  |
|  | • C: Second person |
| 2. "I weighed the substance, and found a mass of 42 grams."  |                    |
| 3. "He recorded the size of the bacterial colony versus time."   |                    |

# Review of Tense and Person

Provide the correct associate of letters to numbers in the following lists.

- |   |                    |
|---|--------------------|
| 1. "We tracked the female raptor back to the next, where we observed three hatchlings." | • A: First person  |
|   | • B: Third person  |
|   | • C: Second person |
| 2. "You all lowered the robot into the ocean using pulleys."                            |                    |
| 3. "They calculated the mean annual income of the households in the neighborhood."      |                    |

*Bonus: what is the difference between the sentences here and those of the prior slide?*

# Review of Tense and Person

Provide the correct associate of letters to numbers in the following lists.

- |                                |                     |
|--------------------------------|---------------------|
| 1. "He will mix the solution." | • A: Simple present |
| 2. "He mixes the solution."    | • B: Simple future  |
| 3. "He mixed the solution."    | • C: Simple past    |

# Review of Tense and Person

Provide the correct associate of letters to numbers in the following lists.

- |  |                      |
|--|----------------------|
| 1. "He administers the vaccine."       | • A: Simple present  |
| 2. "He was administering the vaccine." | • B: Simple future   |
| 3. "He will administer the vaccine."   | • C: Past continuous |



# Review of Tense and Person

Provide the correct associate of letters to numbers in the following lists.

- |                                       |                         |
|---------------------------------------|-------------------------|
| 1. "He is administering the vaccine." | • A: Present continuous |
| 2. "He administered the vaccine."     | • B: Past perfect       |
| 3. "He had administered the vaccine." | • C: Simple past        |

# Review of Tense and Person

Provide the correct associate of letters to numbers in the following lists.

- |   |                                 |
|---|---------------------------------|
| 1. "I administered the vaccine yesterday."                  | • A: Present perfect continuous |
| 2. "I had administered the vaccine long before April 7th."  | • B: Simple past                |
| 3. "I have been administering the vaccine to the patients." | • C: Past perfect               |

# Review of Tense and Person

**Tense and scientific/technical writing:** As a general rule, stay with *simple past* if it fits. Example of exceptions: equations or general knowledge.

- “We mixed the solution.”
- “We observed the herd migrating north.”
- “We recorded a top speed of 110 km/h.”

Exception: equations or other general knowledge not under investigation or experiment.

- “Newton’s 2nd law is written as  $\vec{F} = m\vec{a}$ .” Not: *was written*, because it has not changed.
- “Population dynamics of large herbivores is generally accepted to follow the pattern ... .” Not: *was generally accepted*. General, unchanged knowledge being used here.

## Reversing the Usual Order

---

## Reversing the Usual Order: Object and Subject

**Science is not personal.** We study nature through experiment and reveal the results. It should not matter who we are, because we are not nature. Therefore, it sounds strange when we write:

*I observed the primate behavior to include management of scarce resources.*

1. Identify the subject and object.
2. Remove the subject (the science is not about the observer).
3. Move the subject into the position of the object.
4. Modify the past tense verb into the appropriate conjugation or form.

# Reversing the Usual Order: Object and Subject

Science is not personal. Examples:

1. "I secured the weather station to the tallest rock on the plain." *The weather station was secured to the tallest rock on the plain.*
2. "We recorded the internal temperature of the lab mouse." *The internal temperature of the lab mouse was recorded.*

This style is called **passive voice**.

# Reversing the Usual Order: Object and Subject

## Switch to passive voice.

We measured the average commute time of a typical Whittier College student via the following procedure. First, we obtained a full roster of students through the Registrar. Second, we created a generic email form, and we asked the students to write down their commute times for 10 consecutive school days, and report the average. The form requires the student to report the type of transportation they used to travel to campus. Third, we organized the data into a histogram, and the average commute time was 42 minutes. We found that the variation about the mean was 15 minutes.

## Reversing the Usual Order: Object and Subject

**Review: Switch to passive voice, and also remove ambiguous words.**

First, you harvest the Antarctic ice by drilling a fairly deep hole in the ice sheet, and you separate the ice core into somewhat shorter segments. After you store the ice core segments and transport them to the lab bench, you systematically melt the core segments with a very hot wire wrapped around the core inside a gas chamber. You suction the gas into a canister. Second, you perform mass spectrometry on the gas in the canister corresponding to the segment. Finally, you calculate the ratio of oxygen isotopes in the gas, which is somewhat correlated with average atmospheric temperature when air bubbles were trapped in the ice. Since you know that the deeper the air bubbles, the older the air trapped inside, you can graph the average air temperature versus time over the centuries.



## Reversing the Usual Order: Object and Subject

Convert each to passive voice, but keep the tense the same:

1. "We derive the acceleration due to gravity from the period of the pendulum and its length."
2. "We measured the thermal coefficient of the insulation."
3. "Using the parallax technique, I found the distance to alpha centauri."
4. "Using general relativity, we found an equation for the radius of the black hole."
5. "The vaccine renders the patient immune to the disease."
6. "The vaccine rendered the patient immune to the disease."
7. "Super-spreaders inoculated the population of the building through rapid community spread."

## Writing about a DIY Experiment

---

# Writing about a DIY Experiment

**You are in your house anyways, so why not experiment?** Write down the process for completing an experiment in your house. Examples are listed below. Research how to accomplish your chosen project. Write down a cohesive set of instructions in passive voice with technically accurate language <sup>1</sup>.

1. Create a compass with a needle, magnetizing magnet, cork, and bowl of water
2. Measure the acceleration of gravity from the period of a pendulum
3. Create a “homopolar” motor with a copper wire and a magnet
4. Create a lemon battery
5. Measure the acceleration of gravity by timing the fall of an object

---

<sup>1</sup>In the near future you will exchange documents with a partner and perform the task, so make sure it is doable.

## Conclusion

---

# Summary

**Week 4: *Technical description II*:** We will focus in Week 4 on the passage of time, and describing technically procedures in the passive voice.

1. Exercises: write about a simple experiment you perform at home with household items in the present tense, and then change the writing to passive voice.
2. Exercises: write about a simple experiment you perform at home with household items, and practice removing the subject pronouns.
3. Homeworks: describe a personal achievement you experienced in high school, but include ample usage of passive voice and technical descriptive language.
4. Midterm: The midterm will be due at the end of Week 4, involving a take-home style exam testing what concepts the student has gained up to this point.