BIOD43H Animal Locomotion and Exercise – WINTER 2019

1. Oral Presentation Assignment

# Overview of assignment

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|  | **Step** | **(Due) Date** |
| ***Your presentation*** | |  |
|  | 1. Submit information about selected paper and 5 supporting references | Feb. 8th, by 11:59 PM |
|  | 1. In tutorial storyboarding exercise | Feb. 14th, during tutorial |
|  | 1. Storyboard your entire presentation | Feb. 28th, by 11:59 PM |
|  | 1. Present oral presentation | Weeks of Mar. 7 – Apr. 4, during tutorial |
| ***Peer Review*** | |  |
|  | 1. Read and summarize other students’ selected papers ahead of time (3× total) | Due by start of tutorial section when other students’ present |
|  | 1. Submit a peer assessment of other students’ presentation | Due before start of tutorial the following week |

# Purpose of presentation and objectives

At many regularly-held scientific conferences (e.g. Society for Integrative and Comparative Biology, Canadian Society of Zoologists, and Canadian Society of Ecology and Evolution annual meetings) attendees will have the opportunity to present new findings to an audience composed largely of colleagues and other researchers in their, or related, fields. While publication in a peer-reviewed journal is typically the goal for most of these scientists, the oral research presentations provide a forum in which to ‘show off’ new and exciting data or report, and receive feedback on, newly or partially completed research. In addition, these meetings often provide scientists a chance to report their findings to a more targeted audience than they may be able to secure with a published research article.

Much of the research eventually published in high profile, peer-reviewed scientific journals has, in fact, first been presented at such scientific meetings in these short (typically 10-15 minutes plus time for questions) oral presentations.

# Your assignment

You are expected to present a brief 10-15 minute oral presentation. Presentations will be based on a published research article on some aspect of comparative animal locomotion or exercise physiology. You are expected to present this data as though you yourself were part of the team that conducted the study. You may choose any primary research article having to do with animal locomotion or exercise that has been published in the last 20 years in a peer-reviewed journal (e.g. Nature, Proceedings of the National Academy of Sciences USA, American Journal of Physiology, Journal of Experimental Biology, Physiological and Biochemical Zoology, and many others). Scientific magazines such as Discovery Magazine and Scientific American are not peer-reviewed and are thus not appropriate. Also, please make sure you choose a primary research article (one presenting original findings) and not a review article (a synthesis of data from one or more sources already published elsewhere) or ‘techniques and methods’ (how to) paper. Only papers concerning basic research on some aspect of animal (or human) animal locomotion or exercise are acceptable. In other words, the article should not be ‘clinical’ (examining if some training regime or pharmaceutical enhances performance) UNLESS there is explicit examination of the physiology and/or mechanism by which training or drug action leads to performance differences.

# How to structure your talk

I believe that an oral presentation must focus on the presenter. The bit of text, pictures, videos, and figures/tables comprising the PowerPoint slides are merely tools designed to help the presenter convey their story. It’s not enough to show a figure to the audience. The presenter must talk about what the figure illustrates and help the audience to understand what is shown and how it is relevant to the experimental goals. If the talk was all about the slides, then the presenter should just go ahead and record their narrative (like on a Discovery Chanel show) or not talk at all (no, you cannot do this for this version of the assignment ;) ).

# How to create your presentation

You may use any mainstream presentation program (e.g. [Microsoft PowerPoint](https://products.office.com/en-ca/powerpoint)®, [Prezi](https://prezi.com/)®, or [Apple Keynote](https://www.apple.com/ca/keynote/)®). I assume that at this point in your university career, you’ve used such software before. If you haven’t, please make use of the multitude of tutorials and other online resources available or schedule an appointment with the Instructor (I will help you figure out how to work in the program – I will not be helping you to ‘create’ your talk slides).

# Slide organization

* Title Slide (1 slide)
  + Your talk title, your name, a picture or two if you like, and your institutional affiliation (e.g. UTSC).
  + You should also list the paper authors, title, and publication details.
  + At a real conference this would give the audience a chance to confirm that they’re attending the right talk, and help the presentation series organizer with remembering your talk title and your name.
* Introduction (1-3 slides, see below)
  + A way to introduce the audience to what you’ll be talking about and why the questions you’re addressing are important.
  + **The end of this section should include explicit questions or hypotheses that "your" work addresses.**
* Methods (1-2 slides)
  + Just enough of a description/diagram of the kinds of equipment and experimental protocol "you" used so that your audience can understand what "you" did.
* Results (2-4 slides; *most important*)
  + Clearly and cleanly structured presentation of the results (often in figure or very simple table-form)
* Conclusions and Discussion (1-3 slides)
  + The few, most important, ‘take home’ messages from the research you presented.
  + What is the answer to the questions you posed in the introduction? Were your hypotheses refuted?
  + How do your results fit in with the broader scientific understanding of this area of research?
* Acknowledgements and References (1 slide)
  + If this were your own research, you would acknowledge collaborators, student helpers, and any funding agencies that supported your work.
  + Instead, **you should list relevant citations here** (those papers that contained data or findings that you referred to or mentioned explicitly in your presentation).

# Progress and Important Dates

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| --- | --- |
| **Feb. 8th, due on Quercus by 11:59 PM** | You must have selected the research article that will form the basis for your presentation. Complete the “Oral Presentation/Podcast focal paper” QUIZ (accessed from the “Assignment I – Oral Presentation” module). Follow the instructions  You will be uploading or pasting/entering citation information (journal article title, authors, date, journal name, etc.) for your focal article (the one you will present), and 5+ supporting references. You will also need to upload a PDF version of your focal article and abstracts for supporting references. |
| **Feb. 14th, during your tutorial section** | You will ‘storyboard’ several slides (e.g. “Results” and “Conclusions/Discussion” slides) during tutorial section. You will break into groups and each group will examine the storyboards generated by each member of the group providing constructive feedback on content, structure, and comprehensibility. The TA will also provide input. |
| **Feb. 28th, due on Quercus by 11:59 PM** | You must upload the completed storyboard for your oral presentation. |
| **Mar. 7th – Apr. 4th, PDF of slides due on Quercus 24 hrs before the start of tutorial during which you present** | You will give your oral presentation during a tutorial. The order of presentations will be randomly assigned by the TA/instructor. You will be told your date of presentation at least one week ahead of time. You must submit your presentation (in PowerPoint, Prezi, or PDF format) to Quercus (“Upload Oral Presentation Slides or Podcast” assignment in the module) at least **1 full day ahead** of your presentation. |

# A few pointers

* Start off your presentation with **1-3 slides introducing the area of research and question(s)** you’ll be addressing.
  + Your audience doesn’t yet know the stuff you’re about to tell them. You have to convince them that the research questions you’re addressing are interesting and show them where these questions came from (very briefly explain what relevant studies came before).
* A good rule of thumb is to have approximately **1 slide per minute of presentation time**.
  + If you have much more than this then you are likely moving through the slides too quickly for your audience to comfortably follow along.
  + If you have much fewer than this than you probably have too much information crammed on each slide.
* **Don’t go overboard with the pretty formatting**.
  + If there’s too much fluff on your slides, it will distract your audience from the central message and from your oral presentation.
* **Limit the amount of text on any slide**.
  + If your text is font size 18 or lower you’re in trouble (except for citations)! That’s too small to be easily seen by the back row and is a symptom of having too much text on the slide.
  + If there is too much text on the slide, your audience will have to juggle between reading the slide and listening to you. They’re not going to do either well and your presentation will be all the more forgettable.
* **Don’t read** from the slide.
  + Your audience’s eyes will glaze over as this is the most boring way to present.
  + Think of the text on your slides more as an outline of what you’re talking about.
  + The text on the slides should be brief titles and phrases intended to help them organize what you’re telling them in their heads, or to help them remember the bulleted, ‘take home’ messages from your study.
  + If you need to write yourself notes so you know exactly what to say, that’s fine. But, keep that on a sheet that only you need to see.
* **Don’t put too many figures on one slide**.
  + Too much data all at once is intimidating and too difficult to follow. Your job is to organize the data and help walk them through it.
* **Stay away from all but the simplest tables** all together.
  + Big, complicated tables are just as intimidating as too many figures shown all at once.

# Question and answers and audience (student) participation

One of the most important functions of oral presentations is in providing the presenting scientist with the chance to receive feedback on their work and learn what aspects of the research are strongest or weakest. There are almost always more questions on how the data were interpreted, details of the methodology, and how strong the conclusions can be than there is time allotted to talks.

Students will be expected to ask questions following each oral presentation by a classmate. Questions should not be, “Could you repeat that? I didn’t hear you.”, etc. Instead, questions should be those that ask for clarification regarding what was done and why, how the data allows the presenter to draw the conclusions they do, those that challenge how the data were interpreted and placed within broader scientific context, etc.

Presenters should put significant effort into preparing for such questions. You must be able to speak with some authority about what methodology was employed (read up on the techniques used if you don’t initially understand them, perhaps one of your supporting references is a review of that technique), address questions regarding why you concluded what you concluded, etc. You cannot be expected to answer every possible question. However, reading of related articles (those you cite in your presentation) should help you to anticipate or address at least some of the questions you’ll get.

This is part of your **participation grade**. You can’t (and won’t) be expected to have questions after each and every presentation. However, if you consistently fail to raise your hand and ask questions, this will be noted by the TA and will negatively affect your participation grade.

# Peer assessment

Pre-review

Each presenter will have their presentation reviewed by three classmates. To put it another way, you will have the responsibility of reviewing three of your peers' talks. This will involve a pre-review in which you have to read the paper to be presented and produce a short, abstract-style summary, using your own words. This Assignment () must be completed on Quercus PRIOR TO the start of the tutorial section in which your peer presents their oral presentation or podcast. You will be told which 3 papers/presentations you must do this for at least one week prior to when each is presented.

Peer-review

Additionally, you will fill out an assessment form during/following the talk. You may do this directly on the Quercus Assignment form (if you have your laptop with you), or fill out a paper version and upload/transcribe your feedback to the Assignment form after the fact (if you don’t have your laptop with you; the TA will provide these forms to you). The completion of the online Assignment must be done by the start of the following week's tutorial. Note: you will only have to do one peer assessment per week (maximum of 3), and you will not be expected to do one during the week in which you are presenting.