What are some pointers you remember from these topics that you found especially helpful and/or that you think will be useful to you in the future? This page will be passed around.

Effective collaboration: in person

Dr. Derr videos, POWER process, consultation role-playing, analogies

1. I know how to communicate with clients.
2. How to present the results to clients' graphical method.
3. Consulting role-playing gives us some real experiences.
4. Ethics for consultant
5. Data Confidentiality
6. Meeting structure (POWER process)
7. Analogies - helpful for explaining concepts to non-statisticians
8. How to close a conversation politely.
9. Ask questions: What does the client want to know?
10. How to open a conversation appropriately.
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Effective collaboration: in person

Dr. Derr videos, POWER process, consultation role-playing, analogies

- how to start meeting and set up connection.
- avoid statistical terms. body language.
- communication skills. set expectations.
- use plots to show the result visually.
- confirm you understood correctly.
- open body language and eye contact.
- small talk to make them comfortable.
- respect (& ask for) their expertise.
- repeat & ask for confirm. that you understand.
- sit at the same side, no barrier between client & consultant.
- having conflict = being flexible.
- drawing conclusion for client, using graph instead of numbers.
- point out what the consultant can do and can not do, and make sure they are on the same page.
- always give response.
- giving time-line, having agenda.
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**Effective collaboration: writing**

*Classes on improving writing, tables, and graphics, also assignments and classes on writing a proposal and report*

How rounding numbers in tables can improve readability.

Go through the writing process: brainstorm (plan), draft, revise, edit.

Importance of developing habits w/code writing (more useful as statistician, not consultant).

Learnt about powerful R packages: ggplot2, lattice...

It's important to line up other parts with your goals.

Coding: Spacing, Indentation, Convention, comment, naming (of variables)

Table:
What are some pointers you remember from these topics that you found especially helpful and/or that you think will be useful to you in the future? This page will be passed around.

**Effective collaboration: writing**

*Classes on improving writing, tables, and graphics, also assignments and classes on writing a proposal and report*

Be specific, clear, concise don’t assume readers are native English speakers

Graphics – ink to information ratio

Use Active voice in writing whenever possible

- Language/voice/word choice issues like hedging, passive voice
- Clear, purposeful graphics that provide a piece of the larger picture of your analysis
- Grammar/Linking words better lines, old and new information
- Use pie charts and box plots carefully
- Box plot: how to simplify
- Table Title/Sort variables/alignment/rounding

- Different tables and graphs will leave different opinions to the reader on the same fact
- The best way to write a proposal is to review after course, writing down ideas
What are some pointers you remember from these topics that you found especially helpful and/or that you think will be useful to you in the future? This page will be passed around.

**Using statistics to answer subject matter questions**

- Case studies, including dogs with septic peritonitis, eagle wing flapping, Mpls storm damage, salt reduction, and surround sound, and guests from Travelers and Syngenta

1. Background of study
2. Ask client what question they want to ask
3. Interpret the results in general way
   (make the interpretation easily understood)

**Human/Animal Research**

- Informed consent of subjects.
- Reasonable ratio of benefit to risk.
- Equitable selection procedures and treatment.

**Statistical significance vs practical significance**

**Interpretation of P value**

Prepare to spend majority of time cleaning data. Use simple methods when possible.
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**Using statistics to answer subject matter questions**
case studies, including dogs with septic peritonitis, eagle wing flapping, Mpls storm damage, salt reduction, and surround sound, and guests from Travelers and Syngenta

- Define research question early and very clearly
- Prevent misunderstandings/better on the same page
- Choose results to present carefully & clearly
- Keep things simple if possible
- 70,80 rules in Mpls storm damage
- glm, poisson in eagle wing flapping
- Choose simplest stat. method that works.
What are some pointers you remember from these topics that you found especially helpful and/or that you think will be useful to you in the future? This page will be passed around.

**Responsible collaboration**

*General ethics, research ethics, human/animal research, plagiarism, authorship, intellectual property, conflicts of interest, openness and confidentiality, ethical decision-making.*

Dr. Marty Brown's research \(\rightarrow\) ethical decision-making.

Intellectual property \(\leftarrow\) copyright, trademark, patent

Confidentiality \(\leftarrow\) disclosure of data

Research ethics \(\leftarrow\) honest

Plagiarism \(\leftarrow\) boiler

Statistical consultants are still responsible for ethical issues involved in the study, even when it doesn't directly involve your stats work.

Be honest about the result
What are some pointers you remember from these topics that you found especially helpful and/or that you think will be useful to you in the future? This page will be passed around.

**Responsible collaboration**

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**General ethics**

- Six Confucian virtues
  - benevolence
  - righteousness
  - ritual propriety
  - wisdom
  - trustworthiness
  - filial piety

- honesty

- **American virtues as well**

- who decides when data is public vs. private? and if so, do they need to be public? Is it ethical to break privacy laws?

- employers can own all your intellectual property. Read your contract