Pitch Session Lab

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🗣️ Overview

How can you convince someone else that your idea is interesting or worth studying? Your job in this laboratory exercise is to "pitch" your classmates on a question by trying to get them interested in "solving the mystery". This lab is intended to help get you thinking about how to motivate your scientific inquiries and capture your audience's interest.

🗣️ Learning objectives

This laboratory exercise is intended to help you:

- Practice communicating clearly and directly
- Improve your understanding of how you can get other people interested in a topic of your choosing
- Practice constructing logical arguments
- Practice turning a "question" into a "mystery"
- Practice thinking about study design, resources, effort allocation, and time management

🗣️ Procedure

Note: read ALL of the instructions below before you begin working on this lab.

🧑🏫 Step 1: pick your topic

Together with your group, pick any field, research area, question, or experiment. It should be something you're not already (very) familiar with, but that you think might be fun or interesting. It should also be something (at least peripherally) related to psychology or neuroscience– i.e., something about people's minds, brains, behaviors (how people act individually and/or in groups), etc.

🧑‍🏫 Step 2: plan your pitch

Your pitch will comprise the following elements:

1. State (in some form) your idea as clearly and directly as possible
2. Explain why it's important and why people should care. Is it a societal problem? Is it relevant to people's everyday lives? Is it beneficial to the future of humanity? Is it fundamentally interesting? Why?
3. Explain the key mystery– e.g., what's already known, what's not known. If it's challenging to study, explain why. Or if nobody's solved the mystery before, explain that too. Has nobody tried? Has nobody cared? Has nobody thought of it?
4. Propose how you're going to solve the mystery (or make progress towards solving it). What budget, equipment, and/or resources are you going to need? How long will it take? How hard is it going to be?

Brainstorm each of these elements with your group.

🧑‍🏫 Step 2.5: pitch diary (individual)

Before the presentations begin, each person should individually write a short "pitch diary" entry (3–4 sentences). This is *not* a group exercise– it's your own personal reflection. Answer the following:

- What do *you* personally find most compelling about your group's idea?
- Why does it matter to *you*?
- What are you most excited (or nervous) about in presenting it?

Hold onto this– you'll add to it after the presentations.

🧑‍🏫 Step 3: make your pitch

You'll present your "pitch" in (up to) 5 minutes, to the class. Your pitch can take any form you choose, including (but not limited to):

- A YouTube video that you make and play for the class
- A slideshow (e.g., PowerPoint, Keynote, Prezi, etc.)
- A spoken presentation (with or without visual prompts)
- A drawing on the chalkboard
- An interpretive dance or improv sketch
- A demonstration or stunt (keep it safe, easy to clean up, family friendly, etc.)
- An artwork (painting, sculpture, song, poem, etc.)

The format is totally up to you! Do whatever feels like the best fit for your group's (and idea's) personality. Each presentation will be followed by a discussion of (up to) 10 minutes.

🧑‍🏫 Step 4: generate data!

For each group (including your own!), use this survey to provide feedback immediately after each presentation. You will rate the following on a scale of 1–10:

- How CLEAR was the pitch? E.g., was the main idea/question communicated clearly?
- How INTERESTING was the pitch? E.g., did the pitch succeed at capturing your interest?
- How EFFICIENT was the pitch? Too long or too short (1)? Just right (10)?
- How effective was the chosen FORMAT of the pitch?

The resulting spreadsheet will contain one row per submitted rating and one column per rating dimension (plus two additional columns: one containing the times the given ratings were submitted and the other containing the group identities– A, B, C, or D). The spreadsheet will be available here, but don't peek until after the presentations!

🧑‍🏫 Step 4.5: pitch diary, part 2 (individual)

After all presentations are finished, add to your pitch diary (again, individually– 3–4 sentences):

- What surprised you most about the other groups' pitches?
- Did any pitch change your mind about something, or make you see an idea differently?
- How do you feel about your own group's pitch now, compared to before?

🧑‍🏫 Step 5: predict, then analyze

Before looking at the data, discuss with your group and write down your predictions:

- Which group do you think scored highest on each dimension (clarity, interest, efficiency, format)? Why?
- Which group do you think scored highest *overall*?
- Were there any pitches where you think the audience's reaction might differ from your own?

Now open the spreadsheet and analyze the data. Rank the four groups according to how effective their pitches were. Create a figure of some sort to display the results in a way that conveys your findings clearly.

Then compare your predictions to the actual results:

- Where were you right? Where were you wrong?
- What explains the gaps between your predictions and the data?
- Did the audience value different things than you expected?

🤖 Using GenAI in this lab

Generative AI can help you brainstorm, research, flesh out your ideas, and refine your pitch. You can use it in any way you like, but remember that these tools are best used as *assistants* to your creativity, not as a replacement for it. The goal of this lab is to get you thinking about how to motivate people about your science, and that requires you to engage with the material in a deep and personal way. Use GenAI to help you with the *mechanics* of your pitch, but make sure that the *heart* of your pitch is authentically yours. Otherwise it's going to be hard for you to connect with your audience and actually get them excited about your idea.

You can also use GenAI to help you analyze the data and generate figures. Look out for overly "sycophantic" responses that simply soothe your ego and confirm your biases rather than actually generating rigorous code or analyses. In addition to your common sense, which is your greatest asset here, you can also run ideas by your TAs and/or me to get feedback.

Similarly, don't simply use GenAI to write your report; you won't do well with a one-off "write my report for me" prompt. You will be much better off if you work *collaboratively* with GenAI to help clarify your own thinking and then flesh out your ideas in a way that is clear and compelling. You can also use GenAI to help you critically evaluate your work (or pitch), play devil's advocate, and brainstorm ways to improve it. The more you engage with the material and the more *you* think more deeply about your pitch, the better your final product will be. Remember that AI is generally very bad at predicting what human audiences will find interesting, compelling, or authentic. Similarly, GenAI is generally bad at writing authentic-sounding prose that captures your unique voice and perspective (though it's *great* at copyediting tasks like formatting references, fixing grammar and spelling, and helping out with wording tweaks).

🗣️ Write up your findings

Write up your results (roughly 2–3 pages, double spaced). Your write-up should address the following:

1. **Your pitch diary** (from Steps 2.5 and 4.5): Include your before-and-after diary entries. How did your perspective shift over the course of the lab?
2. **What was hardest?** What was the most challenging part of creating and delivering your group's pitch? What would you do differently next time?
3. **A moment that changed your mind**: Describe a specific moment during another group's pitch where your opinion shifted– you became more interested, more skeptical, or saw something in a new way. What caused that shift?
4. **Predictions vs. reality**: What did the data reveal that surprised you? Where were your predictions wrong, and why do you think you misjudged? Use the group feedback data and at least one figure to support your analysis.
5. **Pitch vs. idea**: Choose the pitch or idea you think was best (it could be your group's,

but it doesn't need to be). Note: this is intentionally ambiguous– a great *pitch* might sell a mediocre idea, and a brilliant idea might be undermined by a weak presentation. Reflect on whether you're evaluating the quality of the *idea* or the quality of the *pitch*, and how (or whether) those can be separated.

6. **GenAI reflection**: How did you use generative AI during this lab? What did you learn from the interaction? Did the AI's suggestions improve your pitch, your analysis, or your write-up? Where did it fall short? Do you think you leveraged GenAI to its full potential? What could you use help with in the future in order to use GenAI more effectively?

🗣️ Closing discussion points

This lab is designed to get you thinking about writing the "Introduction" sections of scientific articles, but you didn't actually write an Introduction section! Why do you think this might be? Is it a bug or a feature?

An effective paper introduction will introduce your question or idea to your audience, discuss any relevant background information, and briefly explain your approach. Think about how the different elements of this lab might relate to introducing a paper.

Finally, I'd like you to think about how the questions we've considered in this lab might pertain to other aspects of scientific research:

- What are some strategies you might use to get someone else excited about your research project?
- What are some different formats that your "pitch" could take?
- How might your approach differ under different circumstances?
  - The classic "30 second elevator pitch" (e.g., imagine you're riding in an elevator with a prospective investor, company CEO, or someone else you want to impress or convince)
  - Talking to a group of first graders at a local school
  - Describing your work to other scientists at an international conference
  - Telling a stranger about your idea during a social event (e.g., party, cocktail hour, formal reception, etc.)
  - Describing your research to a prospective employer
  - Describing your research to a prospective employee
  - Trying to convince a donor to fund your research

Remember that there is no one "right way" to pitch your idea. Be flexible (e.g., adapt with changing circumstances), have fun (let your enthusiasm show through!), and don't over-sell (let your ideas speak for themselves– sometimes "less is more").