Troubleshooting Seminar Presentations in Mathematics

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Questions from Survey
What challenges did you face in preparing for your presentation that you would like more instruction on?
I think it’s difficult to identify which parts of the proof need emphasizing, and is most important.
deciding what's important to talk about; serre is a *really* terse book
Let’s work this problem with the tools that we have from last workshop.
Let’s work this problem with the tools that we have from last workshop.
Each of these variables could be useful for helping us solve this problem.
Let’s look back on the questions and see which of these variables seems most likely to be most useful.
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These questions, to me, seem like they’re both looking for a sorting function.

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The students want some method for sorting what’s important and should be discussed in the presentation, and what is less important and can be glossed or skipped.
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What are your initial thoughts on the questions? How do you interpret them? Which of the variables of the rhetorical situation seems most useful here as a possible sorting function?
Purpose

Recall…
- What is hard or subtle about these ideas?

Useful Sorting Questions
- What are your main takeaways?
- What is the role of the proof in the overall presentation?
- Why do you need to present the proof?

If the audience needs to know then…
- What’s the crux of the proof?
- What is different about this proof?
- What makes the theorem true?
- What can the audience do themselves?

Principle: An outline of the proof is more helpful than equations
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• What is hard or subtle about these ideas?

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What other questions could be useful for sorting important from less important information?
What challenges did you face in GIVING your presentation that you would like more instruction on?
General advice on how to speak more smoothly (i.e. speed, hand gestures, timing)
timing
Let’s work this **problem** with the **tools** that we have from last workshop.
Let’s work this **problem** with the **tools** that we have from last workshop.
And let’s revisit the questions to see where in the **Writing Process** the solution might be found…
General advice on how to speak more smoothly (i.e. speed, hand gestures, timing)
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What are your initial thoughts on this question of timing? What **step** in the **Writing Process** might you explore to figure out the **timing** problem?
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Practice

General Strategies

• Break your talk into modules and time each section with a stopwatch.
• Plan how you will keep track of time – Classroom clock? Watch?
• Give yourself a buffer. Plan to finish early.
• Pause for questions.
• Drink water.

Writing on the Board

• Chill out & don’t rush. Slowing down gives people time to think.
• Explain concept. Write on board. Say what you’re writing. Elaborate on variables. Comment on what you wrote.
General advice on how to speak more smoothly (i.e. speed, **hand gestures**, timing)

What are your **initial thoughts** on the **gestures** question? What part of the **Writing Process** could it be addressed?
There’s a LOT of research on gesture in teaching math.

Today’s notes are from this article, which I recommend if you’re interested in learning more about this topic.

Pick an idea from your last presentation.

Brainstorm a gesture you could have used to help your audience understand the idea better.

Share your gesture with a classmate and see what they think!