You have now completed your game, and you need to explain how it works to the faculty and your fellow students. More than this, you need to justify your design from a social standpoint, and you must explain how the game works. Therefore, your team needs to give a talk of twelve minutes, illustrated with PowerPoint slides, in which you explain these things. Use PowerPoint: do not use other applications such as Google Docs, and be sure to have the presentation mounted on your computer. We do not wish to wait while you download your presentation from another source. You should be prepared to answer two minutes of questions from faculty and fellow students about your project. You may not use notes during this presentation: instead use the technique taught in class to arrive at the right time.

Why an oral report?

Speaking is one of the most important skills in engineering (or any profession)

It provides an opportunity to learn how to explain complex ideas in this important way

Oral presentations: there is a difference…

It’s hard to follow a complicated talk.

The listener cannot go back and revisit material.

People cannot pay attention very long.

**NB:** Oral presentations are

Subject to a number of constraints

Not the same as a written report given aloud

Why are these things true?

What do they imply?
Things to recall before you speak

You cannot give all the information in a presentation that you can in a written report.

The audience can only remember 3 or 4 main points from a talk.

A talk must be properly organized to bring out those main points.

Oral presentations require

- Organization
- Language
- Visuals
- Practice

Practice!

A talk must be

- Organized to bring out those main points
- Planned so there’s enough time devoted to each topic
- Planned so that you meet your time limit

Some old, but good advice

- Estimate the number of words
- Make an outline
- Develop the ideas into paragraphs
- Use interesting and clear language
- Practice your delivery


Estimate the number of words

Unless you know how many words you’re allowed (and this means paragraphs) you won’t know how much you can devote to each part of your talk.

Make an outline to organize your text or else…

- You won’t use your time efficiently
- Your audience will have trouble following you
Break your ideas into paragraphs

This will help you organize ideas

It will help you draw up a talk of the right length

*You should know what a paragraph is by now*

Use interesting and clear language

Obviously, clear language is better understood

Interesting language—vivid language—is more closely listened to

Estimating words

Most people speak between 100 and 150 words per minute

— Why is this important to know?

*Because a properly developed paragraph generally contains between 100 and 150 words.*

Therefore, most people speak about a paragraph a minute

This is useful to know when it comes to planning your talk

Back to organization

As usual, we look to the “Rule of Three”

*Introduction*

*Body*

*Conclusion*

How much time do you have for your oral presentations?

**12 Minutes**

(But what does this mean?)

*This means about 12 developed paragraphs or about 1,800 words maximum*
A different way to think of this:

A little more than five and a half double-spaced pages of typed text—*and this is the maximum.*

Possible distribution of text for a twelve minute talk

- Introduction (1 paragraph)
- Body
  - Point A (3 paragraphs)
  - Point B (4 paragraph)
  - Point C (3 paragraphs)
- Conclusion (1 paragraph)

Let’s consider the distribution of text

- Introduction: a bit
- Body: a lot
- Conclusion: a bit

*Recall that your audience will remember 3 or 4 main ideas.*

*Where are they discussed?*

Possible distribution of text for a twelve minute talk

- Introduction (1 paragraph)
- Body
  - Point A (3 paragraphs)
  - Point B (4 paragraph)
  - Point C (3 paragraphs)
- Conclusion (1 paragraph)

Or this?

- Introduction (1 paragraphs)
- Body
  - Point A (3 paragraphs)
  - Point B (3 paragraph)
  - Point C (4 paragraphs)
- Conclusion (1 paragraph)

*It depends on your presentation.*
What might your main points be?

Some points on presentation itself

Some points to recall about speaking
You aren’t alone in fearing public speaking
Stage fright is actually helpful
Even professional speakers suffer from stage fright
People are afraid to speak in public because they haven’t had practice doing it

The key to minimizing stage fright is preparation and practice

But this doesn’t mean memorization

To be an effective speaker you must

Prepare
An outline of key phrases
Try doing it on note-cards

Practice
Saying your part aloud several times
Over several days, if you can
Say it to your friends or teammates

Possible key phrases for a talk on lasers

- Laser: acronym, "light amplification through stimulated emission of radiation"
- Developed in 1960 at Bell Labs
- Atoms made up of protons, neutrons and Electrons in shells
- Laser light monochromatic, highly directional
- Lasers can have cores of many different materials
- Hundreds of uses: CD players, pointers, eye surgery
Laser: acronym “light amplification through stimulated emission of radiation”

Visual: text showing abbreviation

Atoms made up of protons, neutrons and electrons in shells

Visual: diagram of atomic structure

Laser light monochromatic, highly directional

Visual: diagram of light waves

Lasers can have cores of many different materials

Visual: labelled photographs of various cores

Practice will help eliminate

Stumbling

Poor diction

Undue nervousness

Avoid certain vocal affectations

Improper pitching
(Don’t make a statement sound like a question)
Temporizers

"Ahh"  "Umm"

“So”
The speaker (delivery)

Goodwill: how do you get it?

Use interesting and clear language

Avoid abstractions

Gestures: “What do I do with my hands?”

Posture: stand straight, don’t slouch.

Voice: project

Eye contact: look at people in the audience.

Even though it may be difficult for you.
Dress: the better you dress, the more you’ll be taken seriously.

*It may be unfair, but it’s a fact.*

Be Bold

Most of all, show enthusiasm!

People respond to enthusiasm; they want to share it.

How should the team stand?
Like a wing of flying geese

But why?

Volunteers?

So that the speaker will have a claque
Summary

- Prepare your talk
- Practice it (but don’t memorize it)
- Be bold
- Show enthusiasm
- Use vivid language
- Use good, appropriate visuals