

Making Technical Presentations

**Born public speakers do not exist.
Yet business, social and personal
success depends heavily on a
person's ability to communicate.**

(Dale Carnegie)

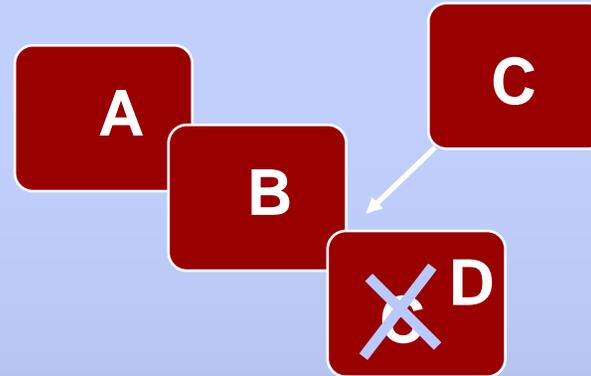
Presentations have several advantages over documents

Work can come alive for the audience

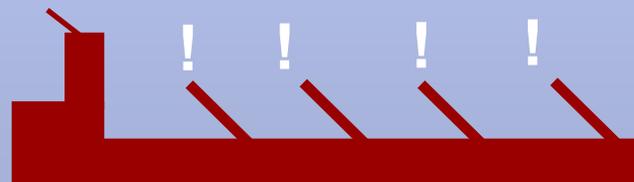
Work →



Presenter can talk audience can react

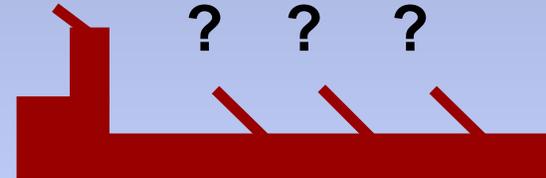


Presenter can highlight main focus



Presentations also have several disadvantages

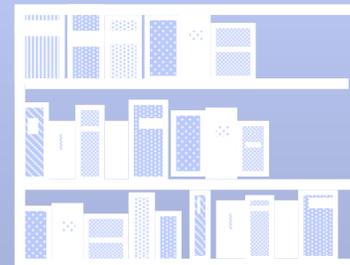
Speaker has limited time and chance to present important data



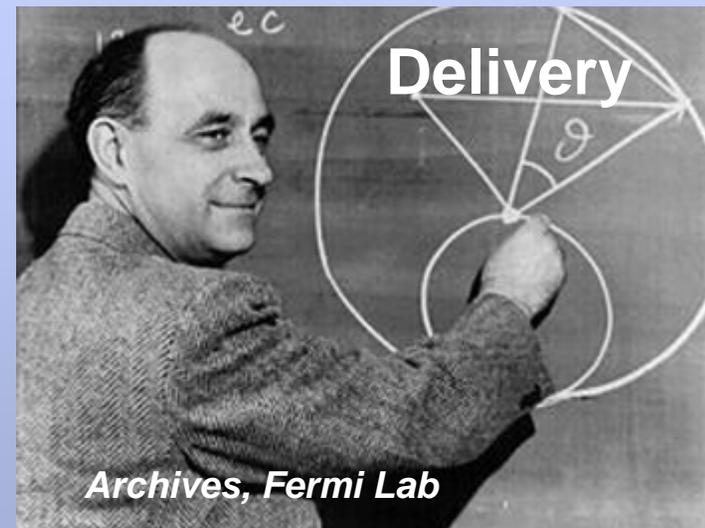
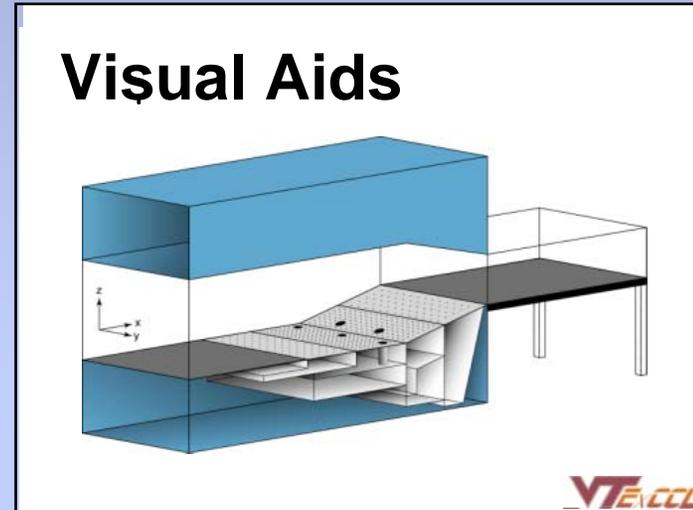
Audience cannot reread text



Audience cannot look up background material



In technical presentation, you have to work on four issues



Presentation structure includes four aspects

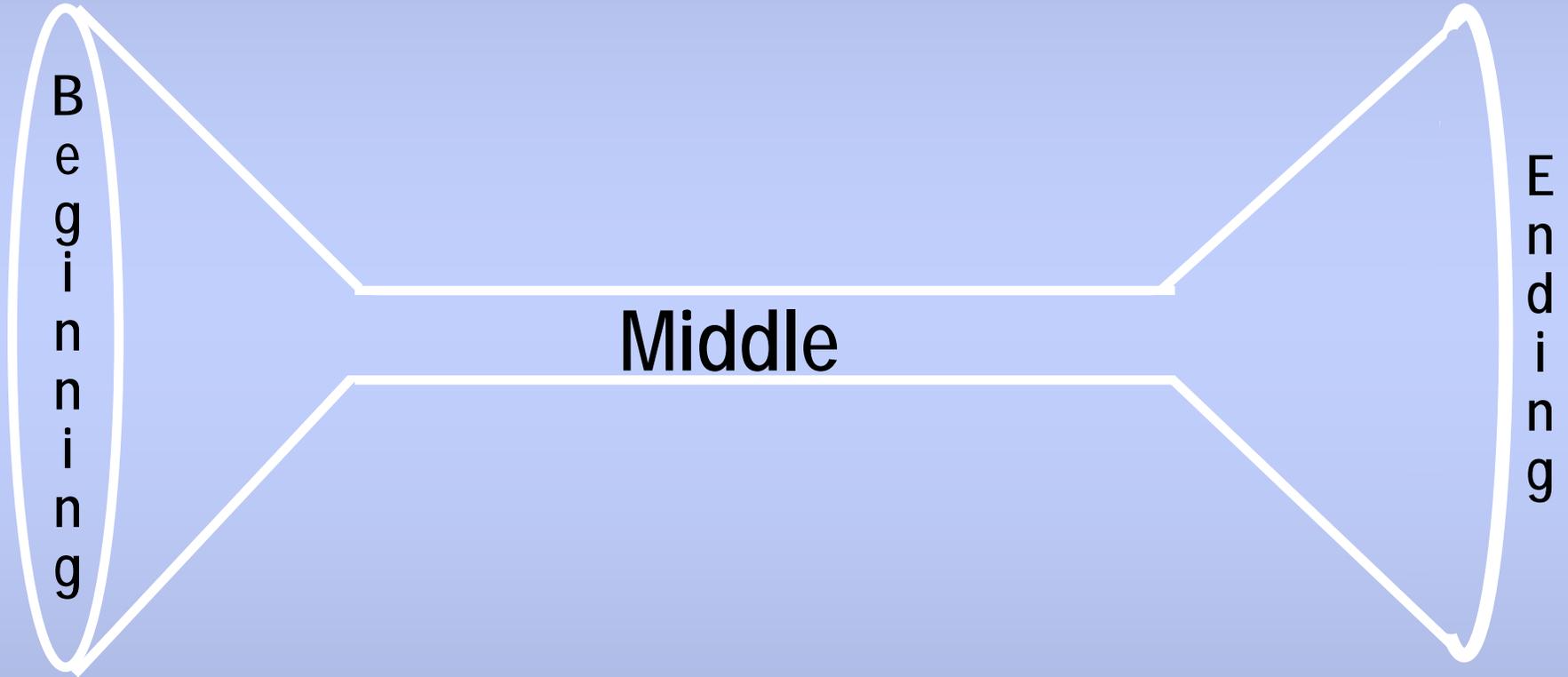
Organization: provide a clear overview

Depth: identify main focus of presentation

Emphasis: present main focus early, emphasize it, repeat it

Transition: use clear sentences to signal move from topics

Like documents, the structure of presentations should have clear beginnings, middles, and ends

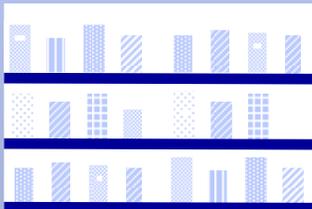


Beginnings prepare the audience for the work to be presented

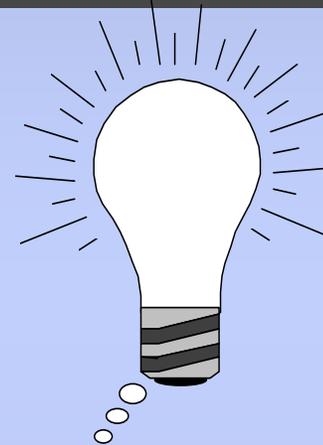
Defines work

Work = A + B

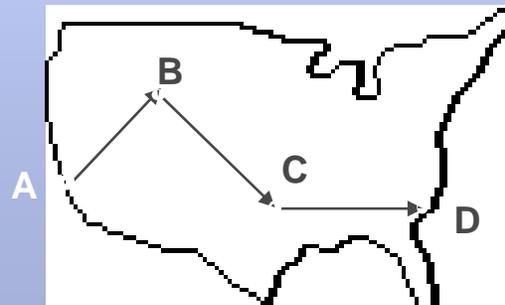
Gives background



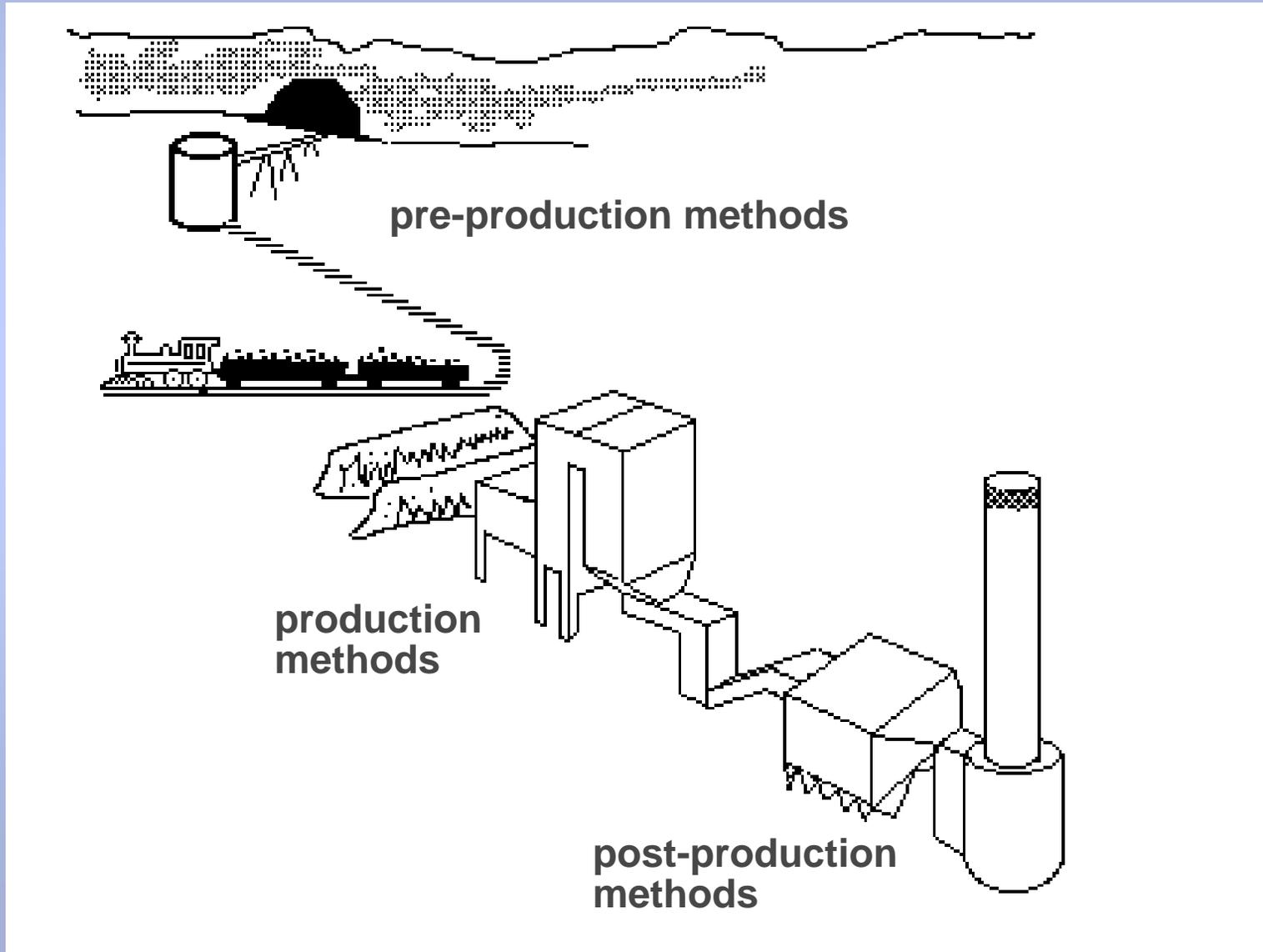
Shows importance/ sparks interest



Maps presentation

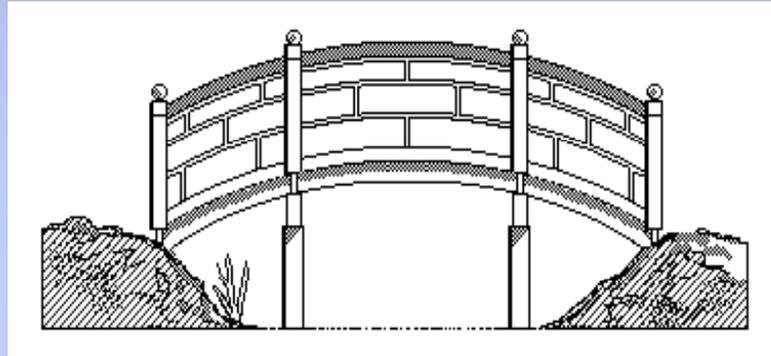


The middle presents the work in a logical order



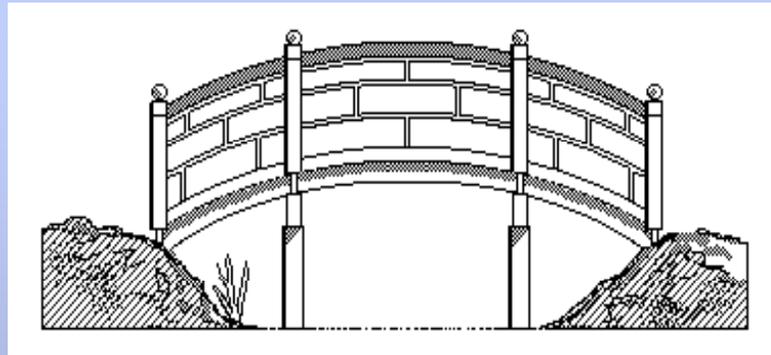
In the middle, you make smooth transitions between major points

**pre-production
methods**



**production
methods**

**production
methods**



**post-production
methods**

The ending summarizes main points and places them in the big picture

point 1
point 2
point 3
point 4

point 5
point 6
point 7
point 8



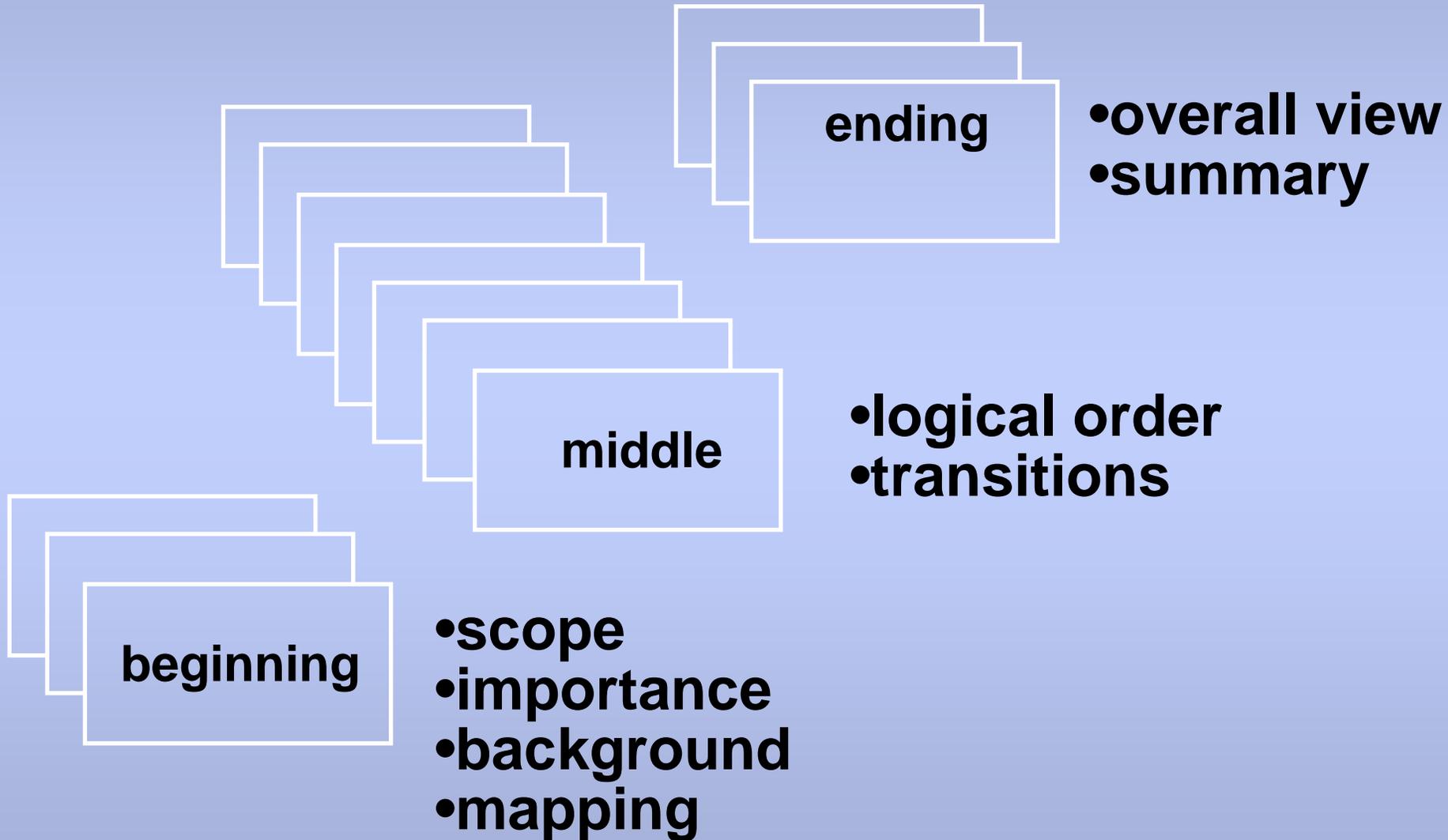
points 1
points 8

summary

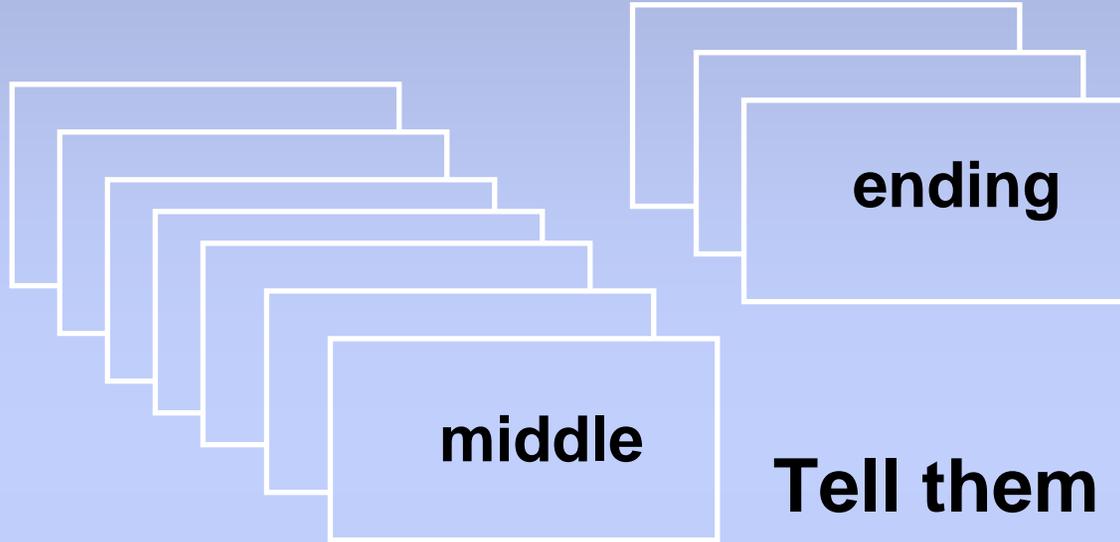


big picture

In a formal presentation, the slides reflect the structure



Each stage has an objective



beginning

Tell them what you're going to tell them

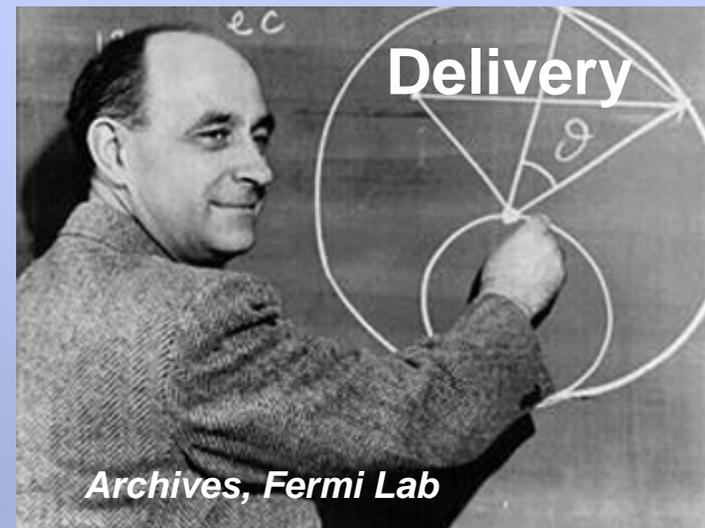
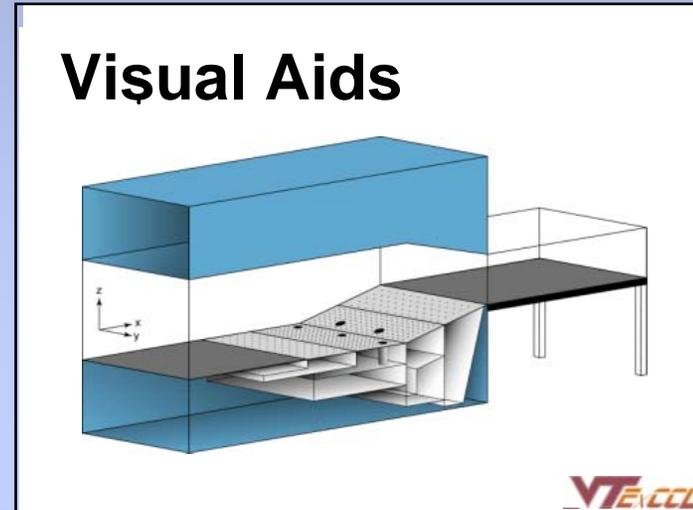
middle

Tell them

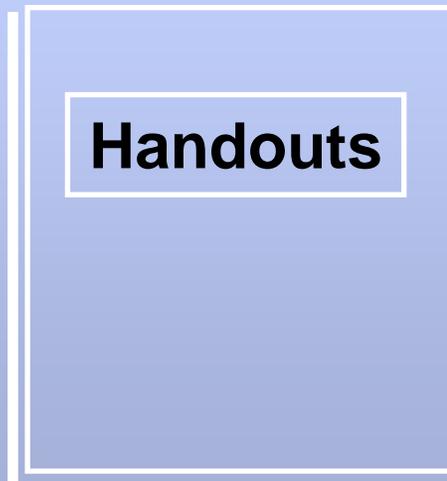
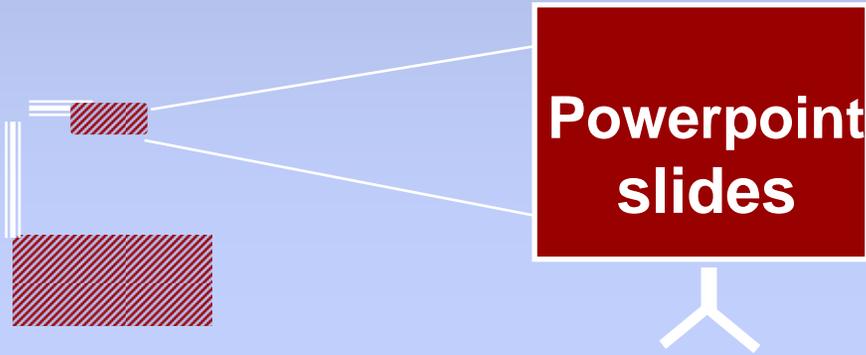
ending

Tell them what you've already told them

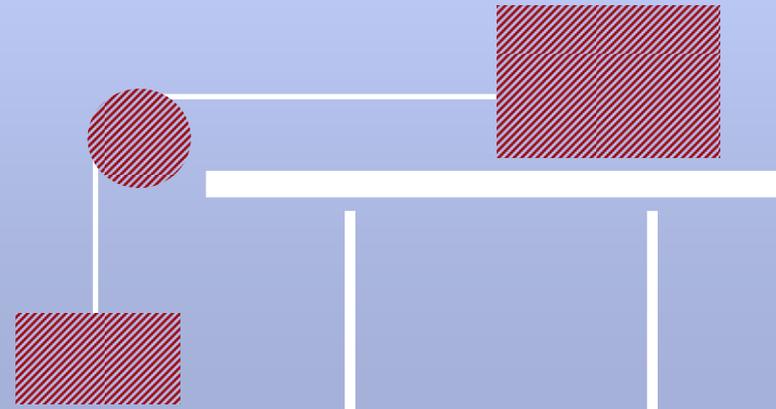
In technical presentation, you have to work on four issues



Technology and equipments support your presentation

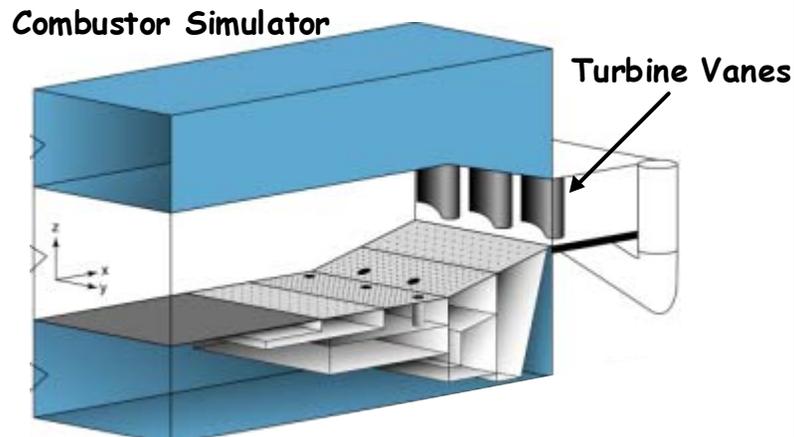


Demonstrations

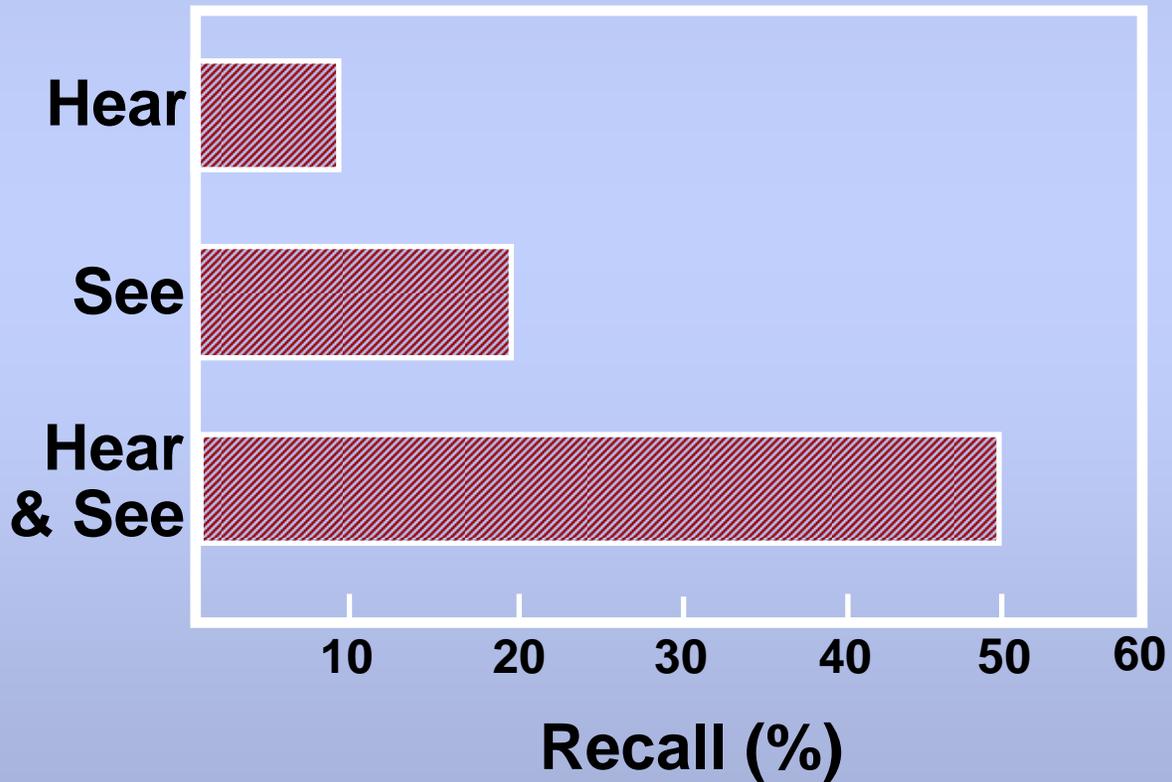


Making Effective Slides – Good slides should complement your presentation and not distract the audience

Downstream of the combustor simulator is a section to test turbine vanes



Audiences remember more when you use simple, clear and well-designed slides



The layout of each slide makes it easier for the audience to follow - headlines/body formats guide the audience

Headline

Use a headline that clearly states the idea of the slide

Body

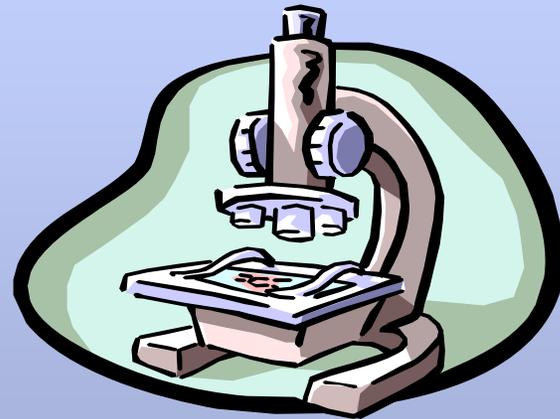
Use words to support main topic

words

words

words

Use images to support main topic



Choose a format that is professional

Choose legible type



Arial



PMINGLIU

Avoid too many words



words
words
words

words
words
words
words

Color affects how fast the audience can read

**Combinations of red, green, and brown are
difficult for many people to read**

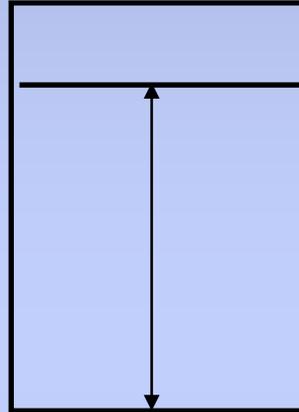
Color affects the emotions of the audience

Avoid having a hot color such as red or orange as your background color.

You need to decide about formats & what information to include

What format to choose?

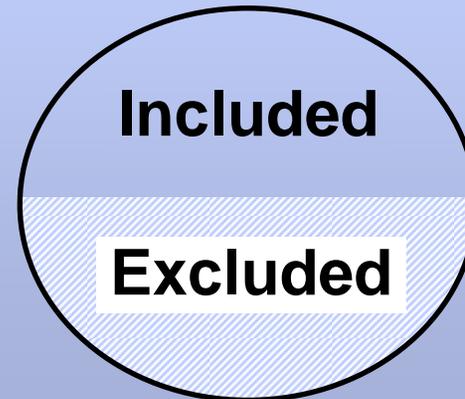
P
o
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Landscape



What information to include?



Include slides that highlight important details

Results/ Findings

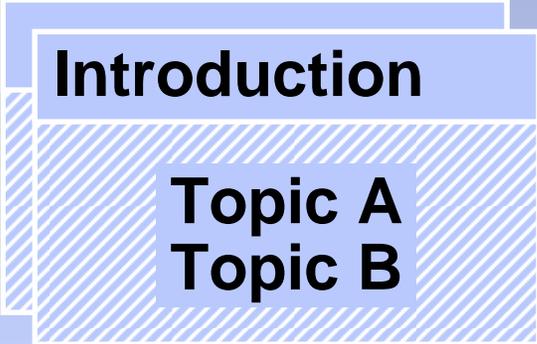
Distribution Channel	Questionnaires returned
Website	264 (54.2%)
Newsgroup	68 (14.0%)
Tel. Interview	35 (7.3%)
At HKUST	100 (20.5%)
Total	487 (464 valid) 500 were sent out

Include slides that show organization

Beginning



Title

A single slide with a light blue background and diagonal hatching. The word "Title" is centered in a dark blue box.

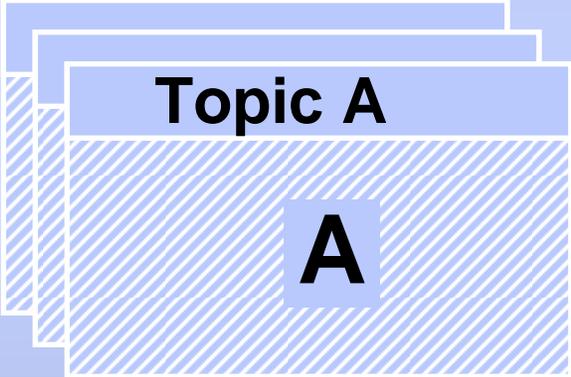
Introduction

Topic A

Topic B

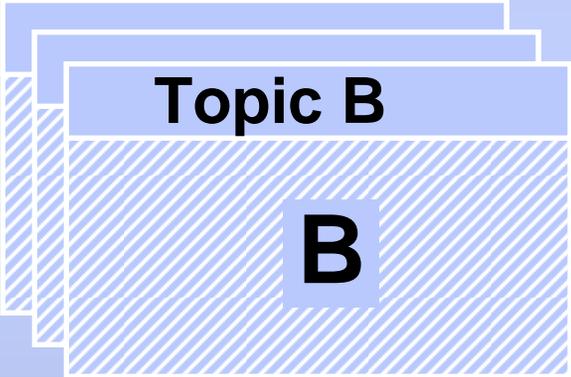
A stack of three slides. The top slide is white with a blue header "Introduction". The middle slide has a blue header "Topic A" and a hatched body. The bottom slide has a blue header "Topic B" and a hatched body.

Middle



Topic A

A

A stack of two slides. The top slide is white with a blue header "Topic A". The bottom slide has a hatched body with a dark blue box containing the letter "A".

Topic B

B

A stack of two slides. The top slide is white with a blue header "Topic B". The bottom slide has a hatched body with a dark blue box containing the letter "B".

Ending



Conclusion

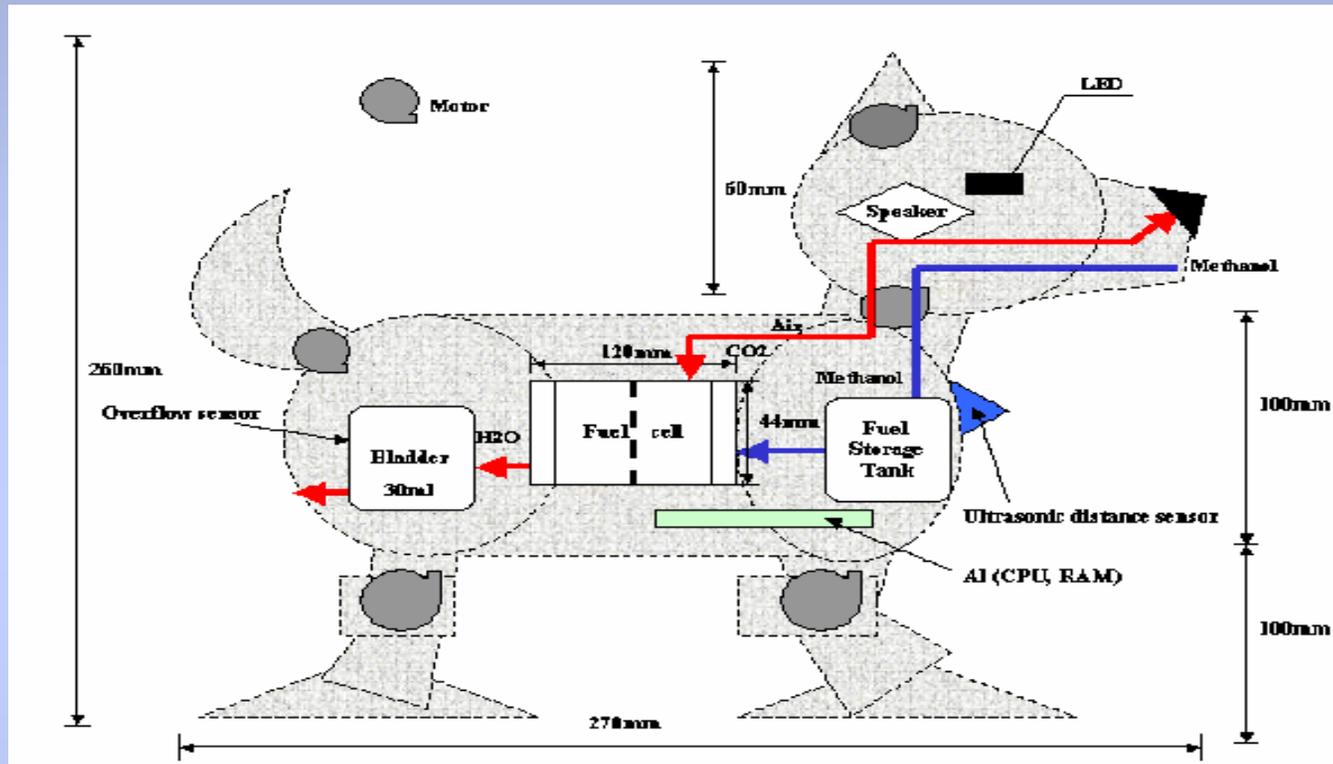
Summary of A and B

A single slide with a light blue background and diagonal hatching. The word "Conclusion" is in a blue header, and "Summary of A and B" is in a dark blue box.

Don't include details the audience does not need or cannot remember



Avoid complex pictures or graphs - simplify



Cell Type	E (V)	i (mA/cm ²)	φ (Wh/kg)
Ni/Cd battery	1.2	10^{-1}	60
Ni/metal hydride battery	1.2	10^{-1}	65
Li/Li _x Mn ₂ O ₄ battery	3.0	10^{-1}	130
LiC ₆ /Li _x CoO ₂ battery	3.6	10^{-1}	90
CH ₃ OH/O ₂ m-PEFC	0.4	10^2	921

Avoid complicated equations

$$P_k(\beta) = \sum_j \sum_i F_{ij} S_i(\beta) B_{jk}(\beta) + \sum_j [1 - S_k(\beta)] F_{kj}$$

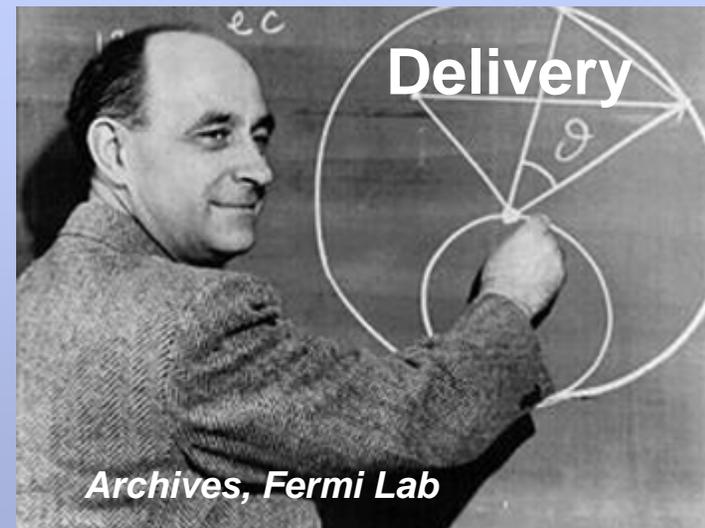
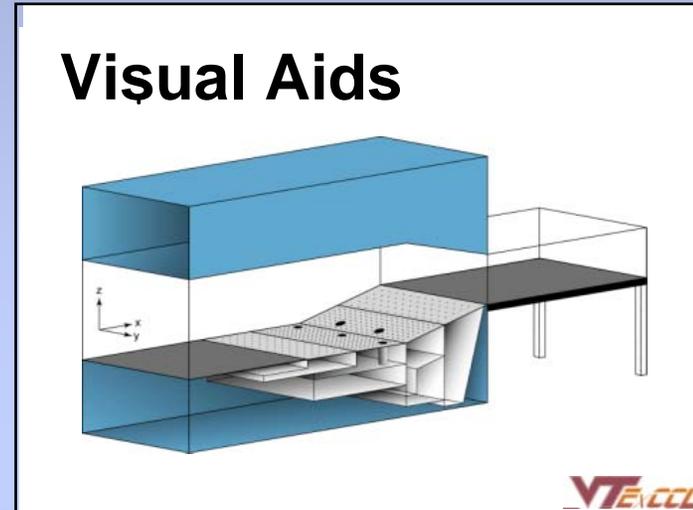
Avoid presenting information in sentences

The fuel cell system does not only enhance the power performance of our robotic dogs, but it can also add some fantastic features and these features are feeding, breathing and excreting.

Summary: Present clear and concise messages

- **Use professional fonts and styles**
- **Use only a few contrasting colours**
- **Limit the amount of details on each slide**
- **Identify the main focus of each slide**
- **Present drawings or diagrams as support**
- **Avoid complicated drawings or graphs**

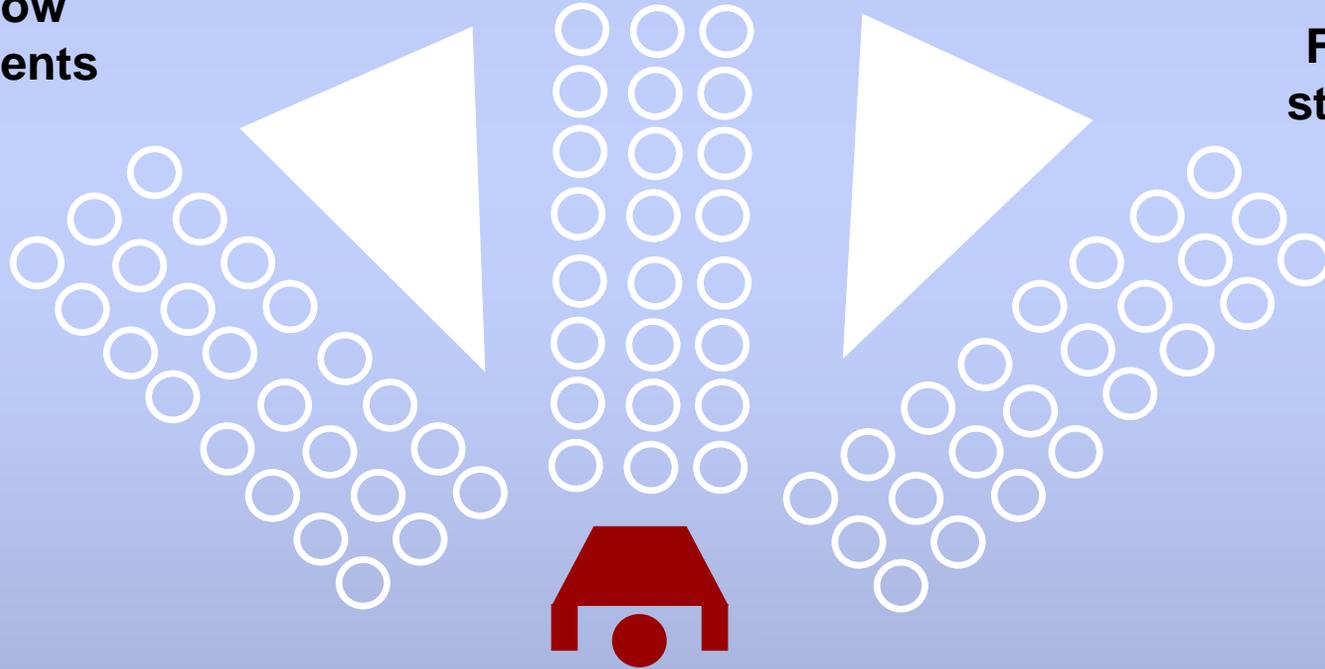
In technical presentation, you have to work on four issues



Audience, purpose, and occasion determine the appropriate speech to give

Professors

Fellow
students



Fellow
students

You have several choices for how you can deliver your speech

Memorizing the Speech

- + allows eye contact**
- difficult for long speeches
- room for precision errors
- no room for improvising

Reading From a Text

- + ensures precision**
- does not sound natural
- no room for improvising
- limits eye contact

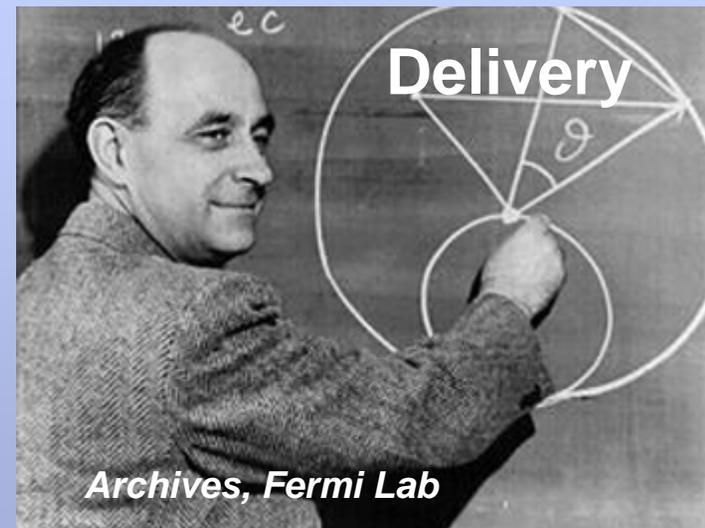
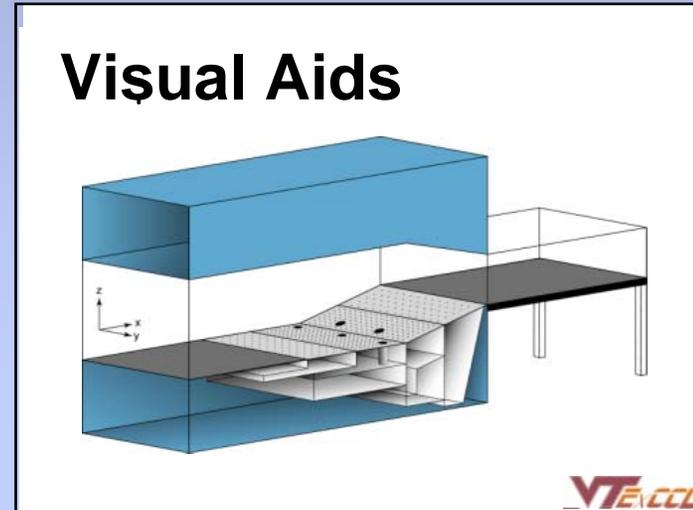
Speaking freely

- + sounds natural**
- has much room for error
- deviate from time limit

Speaking From slides & notes

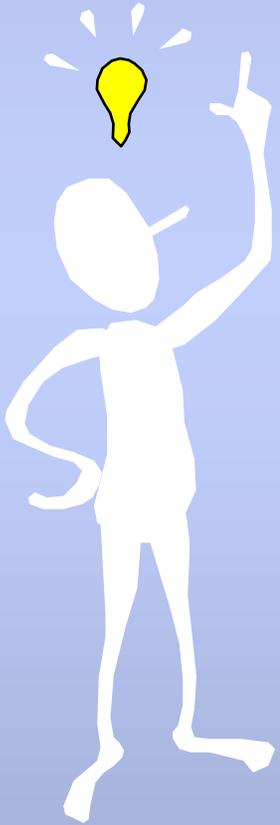
- + insures organization**
- + allows eye contact**
- + allows improvising**
- some room for error

In technical presentation, you have to work on four issues



Delivery is the speaker's interaction with the audience

Voice



Movements



Stage Presence



Make note of the time and identify the focus of your slides

Timeframe?

- Division of time**
- Concentration on each slide**
- Signaling time**
- Allow 1-2 minutes per slide**

Main points?

- Focus on importance**
- Be selective**
- Avoid too much detail**

Post Presentation Question & Answers

- **Brainstorm possible questions**
- **Assign who will answer certain areas & co-ordinate your responses**
- **It is acceptable to make certain assumptions, simplifications, or estimates in doing your project**

“Remember: if you do not know how to answer a question, do not pretend that you know. Admit ignorance and ask the examiner(s) for help on how you might find out more on the subject being questioned.” Professor PLYue

In technical presentation, you have to work on four issues

