

# **COMP 516**

## **Research Methods in Computer Science**

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**COMP 516**  
**Research Methods in Computer Science**  
**Lecture 12: Presentations and Presentation Skills**

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# Presentations: Recall

- People remember
  - 20% of what they hear
  - 30% of what they see/read
  - 50% of what they see and hear
  - 70% of what they say and write
  - 90% of what they do
- Regarding information presented during a (one hour) lecture, students retain
  - 70% of the first 10 minutes
  - 20% of the last 10 minutes

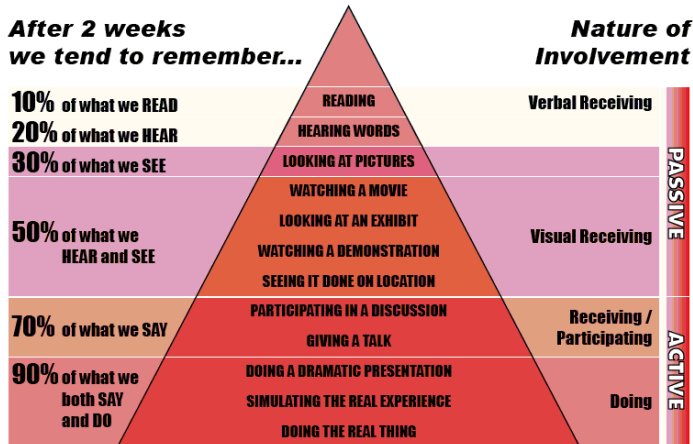
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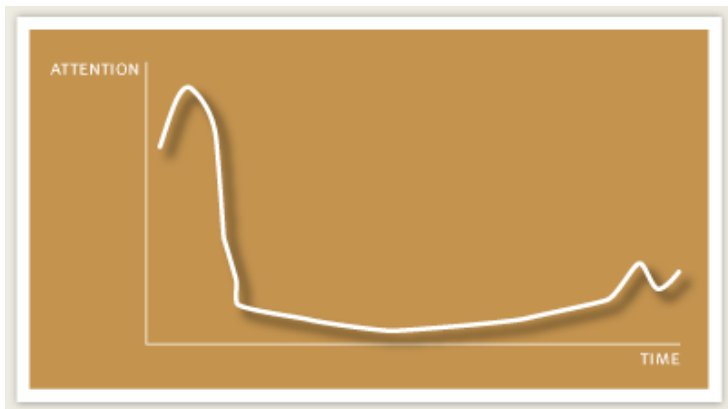
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- Regarding information presented during a (one hour) lecture, students retain
  - 70% of the first 10 minutes
  - 20% of the last 10 minutes
- Are there **techniques** that can help us improve the recall of the audience or at least focus their recall on the important aspect of a presentation?

## Cone of Learning (Edgar Dale)



Edgar Dale, *Audio-Visual Methods in Technology*; Holt, Rinehart and Winston.

# Attention During Lectures



# Questions

- 1 What are the different types of presentations?
- 2 What is the typical structure of a presentation?
- 3 What steps do one go through when preparing a presentation?



# Types of Presentations

Presentations typically serve one or more of the following purposes:

**Purpose:** Information delivery, Information gathering, Instruction, or Persuasion

In addition, we can classify presentations along the following 'scales':

**Medium:** Verbal, Verbal with Visual Aids, or Written

**Presence:** In person — Transmitted — Recorded

**Interaction:** Monolog — Dialogue

**Time:** Short — Long

**Audience:** Small — Large

**Setting:** Informal — Formal

**Preparation:** Ad hoc — Scripted

# Structure of Presentations

- Introduction

- ↪ motivation, contextualisation, overview

- Main body

- ↪ main findings, elaboration

- Conclusion

- ↪ comment on importance of findings, future work, summary

# Preparing Presentations

- 1 Determination of the objectives of the presentation
- 2 Analysis of the audience
- 3 Planning
- 4 Organisation of the material for effective results
- 5 Preparation of visual aids / handouts
- 6 Delivery practice

# Questions

- 1 What is the purpose of visual aids?
- 2 What types of visual aids do you know?
- 3 Can you give a 'style guide' for slides?

# Visual aids: Purpose

- Give structure to a presentation
- Provide a point of reference for the speaker and the audience
- Help an audience to remember
- Focus the attention of both audience and speaker
- Reinforce what is said

# Visual aids: Types

- Prepared in advance, immutable at time of presentation
  - Video
  - Slide projector
- Created or reproduced during presentation, mutable at time of presentation
  - Flip chart
  - Chalk/White board
- Dual use
  - Overhead projector (OHP)
  - LCD projector (beamer) plus PC
  - Interactive white board plus PC

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# Slides: Structure

- Decide on a **structure** / **theme** for your slide in advance, then stick to it
- Consider the following questions:
  - Does the audience know me (and my affiliation)?
  - How important is it that the audience remembers the title of my presentation?
  - How many navigational hints are required?
  - How many graphics do I need to include? Can they be placed consistently?

The answers will influence how you should structure your slides

## 1 Can you give a 'style guide' for slides?

Consider

- Title
- Textual content
- Fonts
- Colours
- Graphics and animations

# Slides: Titles

- Put a title on each slide
- Titles should be short but **descriptive**
- Ideally, titles on consecutive slides should **tell a story** all by themselves
- **Capitalise** words **consistently**
  - Either always capitalise all words in the title (except for words like 'a' and 'the'), or
  - always only capitalise the first word in the title/subtitle
- The title of the whole presentation should be capitalised  
You might want to include it on every slide

# Slides: Textual Content (1)

- Keep it simple
- A typical slide should contain 20 to 40 words, maximum 80
- Do **not** try to fill all the space
- Prefer enumerated or itemised **lists** over plain text
- Use **at most two levels** of 'subitemizing'
- Keep the **number of items** in a list **low**
- Highlight important things

## Slides: Textual Content (2)

- Use **short sentences**
- Prefer **phrases** over complete sentences
- Break lines where there is a logical pause
- **Do not hyphenate** words
- **Punctuate consistently**
  - No punctuation after phrases
  - Complete punctuation in and after complete sentences
- **Avoid decreasing font size** to make more text fit on a slide

- Aim for your text to be **legible** even under difficult conditions
- Use as few fonts as possible
- Use a **sans-serif font** unless you use a high-resolution LCD projector
- Use **monospaced** and **script fonts** only for specific purposes
- **Avoid italics** to express emphasis, **use colour instead**

# Slides: Colours

- Use colours sparsely
- Avoid bright text on dark background
- Maximise contrast
  - Normal text should be black on (nearly) white background
  - Avoid bright, light colours on white background
- Be aware of what we associate with different colours
- Test your presentation on the intended equipment if possible

# Slides: Colour associations

Red	Danger, aggression, passion, stimulating
Purple	Royalty, religion, calming
Green	Soothing, trustworthiness, nature
Blue	Restful, peaceful, relaxing
Yellow	Well-being
Brown	Nature, practicality, boring, close minded



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Decide

- what you want to highlight,  
e.g. keywords, main results, examples, current focus
- which colour you want to use for each of these categories

Then apply this **colour scheme** consistently

# Slide Structure and Content: Graphics and Animations

- **Graphics** often convey concepts or ideas more effectively than text
- Use graphics as often as possible
- **Graphics** should only contain as much detail as necessary
- **Graphics** always require **explanation**
- Use **animations** to explain the **dynamics of systems, algorithms, ...**
- Do **not** use animations to simply attract attention
- Do **not** use distracting **special effects** like fancy slide transitions

# Questions

- 1 How should you behave during a presentation?
- 2 What kind of behaviour should you avoid during a presentation?

Consider

- Stance
- Hands
- Eye contact
- Voice

# Gesture and Body Language: Stance and Movement

- Be aware where you stand (centre stage vs side stage)
- Do not obscure the screen
- Stand tall, keep your head up most of the time
- Move from stillness to stillness, walk slowly

# Gesture and Body Language: Hands

- Use hand gestures to emphasise points
- Use open palm gestures, full arm gestures
- **Avoid** aggressive gestures
- **Avoid** hands in pockets, hands behind your back, hands clasped in front of your body

# Gesture and Body Language: Eye Contact

- Maintain eye contact
  - lighthouse beam
  - treat everyone equal
  - do not look out of the window or on your watch
  - do not focus too long on a single individual
- Keep an eye on the audience's body language
  - does a point need further clarification?
  - can you proceed more quickly than anticipated?

# Gesture and Body Language: Voice

- Be aware of the **acoustics of the room**
- **Speak clearly** (do not shout or whisper)
- **Pause** shortly at key points (adds emphasis)
- **Emphasise the right words**, control your breathing
- **Facial gestures** and tone of voice should match your message
- Do **not** rush, or talk deliberately slowly, but vary speed
- Do **not** talk to the screen
- Do **not** turn your back to the audience and talk at the same time
- Do **not** read from a script (cue cards are ok)

# Seven Principles of Public Speaking

(Isa N. Engleberg: The Principles of Public Presentation.  
Harper Collins, New York, 1994)

- Purpose:** Why are you speaking?  
What do you want audience members to know, think, believe, or do as a result of your presentation?
- People:** Who is your audience?  
How do the characteristics, skills, opinions, and behaviours of your audience affect your purpose?
- Place:** How can you plan and adapt to the logistics of this place?  
How can you use visual aids to help you achieve your purpose?



# Seven Principles of Public Speaking

(Isa N. Engleberg: The Principles of Public Presentation.  
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- Preparation:** Where and how can you find good ideas and information for your speech?  
How much and what kind of supporting materials do you need?
- Planning:** Is there a natural order to the ideas and information you will use?  
What are the most effective ways to organise your speech in order to adapt it to the purpose, people, place, etc.?

# Seven Principles of Public Speaking

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**Personality:** How do you become associated with your message in a positive way?

What can you do to demonstrate your competence, charisma, and character to the audience?

**Performance:** What form of delivery is best suited to the purpose of your speech?

What delivery techniques will make your presentation more effective?

How should you practice?

# Announcements

- tomorrow (19 Oct) 6pm: deadline for submitting your **topic and abstract**
- in two weeks (2 Nov) at 6pm: deadline for submitting your **presentations and preliminary bibliography**
- tomorrow's practical is about **locating and retrieving literature**
- attendance **will be monitored**
- 9 hours of **free** English language classes per week for intl students  
`cgi.csc.liv.ac.uk/~dominik/teaching/comp516/resources.html`

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