

Presenting Statistics

Saghir Bashir
SBTC Limited

saghir@sbtc.ltd.uk

Choose One

- What is the most important factor in presenting?
 - Self confidence
 - Motivation & enthusiasm
 - Preparation
 - Seniority of presenter
 - Speaking skills
 - Right visual aid
 - Knowledge

Outline

- What is a Presentation?
- Preparation
 - Pre-planning
 - Outline
- Nerves
- Fonts
- Presenting Tables

Honesty

- Statisticians are not helped by:
 - "Lies, damned lies and statistics"
 - "Statistics can be used to prove anything"
 - "I've never had a head for figures"
- Be **HONEST** when presenting any statistics
 - No misrepresentation
 - No disguising unfavorable results
 - Audience will respect and trust you more

Overview

- **Presentation Skills**
 - Speaking Effectively
 - Preparation
 - Visual Aids
 - Questions and Answers
- **Presenting Statistics**
 - Results & Methodology
 - Tables
 - Graphs

What is a Presentation?

A process where a presenter imparts information to an audience

What is a Presentation?

- It is not:
 - a lesson
 - no homework
 - no examination at the end
 - no testing to see if audience is paying attention

Preparation

**Fail to Prepare -
Prepare to Fail**

Pre-planning

- Who is attending?
- What do they expect?
- Why am I presenting?
- When am I presenting?
- Where am I presenting?
- How can communicate my message?

Writing a Presentation

- Start with an outline
- Write the first draft
- Refine it
 - Prioritise contents
 - CUT, CUT, CUT
- Final draft
 - Leave for 2 days then review it
- Final version

The Outline

- **Aim**
 - What is your main message?
- **Goals**
 - What do you want to achieve? (max 3)
- **Main Points**
 - What major points do you want to make? (6-8)
 - Every slide should have a point!
- **Title**
 - Simple to encourage the audience to attend

Controlling Nerves

- **Nervousness before presentation**
 - It is natural
 - None implies arrogance or no interest
 - Control not avoidance
- **Adrenaline**
 - "Revving" yourself up for a great presentation
 - Natural reaction

Controlling Nerves

- Know your subject
 - Don't bluff; your audience is intelligent
 - Research thoroughly
 - Be up to date
 - Presentation skills cannot substitute knowledge
 - KNOW WHAT YOU ARE TALKING ABOUT!!!
- Keep everthing simple
 - For the audience and ...
 - .. for YOURSELF

Controlling Nerves

- Self confidence
 - Believe in yourself
- Prepare well
- Practice in front of
 - a mirror / camcorder
 - family or friends
 - colleagues
- Learn your opening by heart

What Can You Read?

If you can read this put your left hand on your head - Times 12 point

If you can read this put both your hands on your head - Times 14 point

If you can read this raise your left hand - Times 16 point

If you can read this raise your right hand - Times 20 point

If you can read this raise both your hands - Times 24 point

Choose font and font size carefully - Times 28 point

© S. A. Bashir, SBTC Limited 2003 - www.sbtc.ltd.uk

What Can You Read?

If you can read this put your left hand on your head - Arial 12 point

If you can read this put both your hands on your head - Arial 14 point

If you can read this raise your left hand - Arial 16 point

If you can read this raise your right hand - Arial 20 point

If you can read this raise both your hands - Arial 24 point

Choose font and font size carefully - Arial 28 point

© S. A. Bashir, SBTC Limited 2003 - www.sbtc.ltd.uk

What Can You Read?

If you can read this put your left hand on your head - Arial 12 point
If you can read this put you left hand on your head - Times 12 point

If you can read this put both your hands on your head - Arial 14 point
If you can read this put both your hands on your head - Times 14 point

If you can read this raise your left hand - Arial 16 point
If you can read this raise your left hand - Times 16 point

If you can read this raise your right hand - Arial 20 point
If you can read this raise your right hand - Times 20 point

If you can read this raise both your hands - Arial 24 point
If you can read this raise both your hands - Times 24 point

Choose font and font size carefully - Arial 28 point
Choose font and font size carefully - Times 28 point

Font

- Don't use "Serif" fonts
 - With flourishes
 - e.g. Times New Roman, Bookman
- Use a "San Serif" font
 - Straight and clean
 - No flourishes
 - Easier to read
 - e.g., Arial, Helvetica
- Stick with one or two fonts

Example: Dementia

- Made up
 - Parallel group trial
 - Drug vs Placebo
 - Assess change in Dementia
 - “SAG” rating scale
 - Five visits
 - Baseline
 - 3 monthly visits
 - Final visit – month 12

Table – What do you think?

Dementia

		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5
Drug	Mean	50.4	47.8	47.9	46.1	45.0
	SD	3.91	3.88	3.90	4.07	3.94
Placebo	Mean	49.4	41.8	33.2	27.5	22.6
	SD	3.76	4.14	4.46	4.23	4.93

Example: Dementia

- Layout and structure
 - Too many lines - cluttered

Example – Dementia

		Dementia				
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5
Drug	Mean	50.4	47.8	47.9	46.1	45.0
	SD	3.91	3.88	3.90	4.07	3.94
Placebo	Mean	49.4	41.8	33.2	27.5	22.6
	SD	3.76	4.14	4.46	4.23	4.93

Example – Dementia

- Layout and structure
 - Too many lines - cluttered
 - Hard to identify structure

Example – Dementia

		Dementia				
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5
Drug	Mean	50.4	47.8	47.9	46.1	45.0
	SD	3.91	3.88	3.90	4.07	3.94
Placebo	Mean	49.4	41.8	33.2	27.5	22.6
	SD	3.76	4.14	4.46	4.23	4.93

Example – Dementia

- Layout and structure
 - Too many lines - cluttered
 - Hard to identify structure
 - Title uninformative
 - Not clear what numbers mean

Example – Dementia

Dementia study – SAG rating scale by visit and treatment

		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5
Drug	Mean	50.4	47.8	47.9	46.1	45.0
	SD	3.91	3.88	3.90	4.07	3.94
Placebo	Mean	49.4	41.8	33.2	27.5	22.6
	SD	3.76	4.14	4.46	4.23	4.93

Example – Dementia

- Layout and structure
 - Too many lines - cluttered
 - Hard to identify structure
 - Title uninformative
 - Not clear what numbers mean
- Contents
 - Decimal places add to clutter

Example – Dementia

Dementia study – SAG rating scale by visit and treatment

		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5
Drug	Mean	50	48	48	46	45
	SD	3.9	3.9	3.9	4.1	3.9
Placebo	Mean	49	42	33	28	23
	SD	3.8	4.1	4.5	4.2	4.9

Example – Dementia

- Layout and structure
 - Too many lines - cluttered
 - Hard to identify structure
 - Title uninformative
 - Not clear what numbers mean
- Contents
 - Decimal places add to clutter
 - Hard to identify trends

Example – Dementia

Dementia study – SAG rating scale by visit and treatment

	Drug		Placebo	
	Mean	SD	Mean	SD
Visit 1	50	3.9	49	3.8
Visit 2	48	3.9	42	4.1
Visit 3	48	3.9	33	4.5
Visit 4	46	4.1	28	4.2
Visit 5	45	3.9	23	4.9

Example – Dementia

- Layout and structure
 - Too many lines - cluttered
 - Hard to identify structure
 - Title uninformative
 - Not clear what numbers mean
- Contents
 - Decimal places add to clutter
 - Hard to identify trends
 - Visits can be clarified further

Example – Dementia

Dementia study – SAG rating scale by visit and treatment

Visit	Drug		Placebo	
	Mean	SD	Mean	SD
Baseline	50	3.9	49	3.8
Month 3	48	3.9	42	4.1
Month 6	48	3.9	33	4.5
Month 9	46	4.1	28	4.2
Final	45	3.9	23	4.9

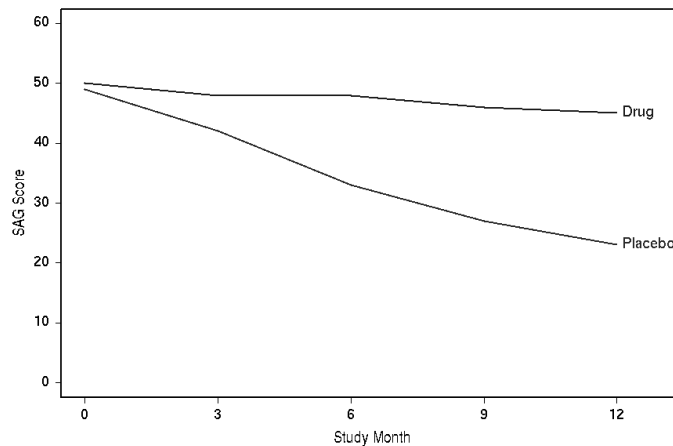
Original Table

Dementia

		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5
Drug	Mean	50.4	47.8	47.9	46.1	45.0
	SD	3.91	3.88	3.90	4.07	3.94
Placebo	Mean	49.4	41.8	33.2	27.5	22.6
	SD	3.76	4.14	4.46	4.23	4.93

Is A Graph Better?

Dementia study - SAG rating scale by visit and treatment



Summary

- Preparation
 - Pre-planning
 - Writing a presentation
 - CUT, CUT, CUT
- Nerves
- Font size and style
- Tables
 - Make them easy to read

Useful References

- “Plain Figures” by *Myra Chapman & Cathy Wykes* - The Stationary Office, London (1996)
- *Statistical Graphics* by *Calvin Schmid* - Krieger, Florida (1992)
- *The Visual Display of Quantative Information* by *Edward Tuft* - Graphics Press, Cheshire, Connecticut (1998)