



BLDE (Deemed to be University)  
Shri B. M. Patil Medical College Hospital  
and Research Centre Vijayapura  
**Medical Education Unit**

**'Being a Competent  
Medical Teacher'**

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# 8 APPROPRIATE USE OF MEDIA IN LEARNING AND TEACHING

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*“Newer technologies such as computers and video conferencing are not necessarily better (or worse) for teaching or learning than older technologies...they are just different... The choice of technology should be driven by the needs of the learners and the context in which we are working, not by its novelty.” Bates AW*

## **Introduction**

Aids in Teaching and Learning Process has seen a sea of change over past decades. Since the invention of Blackboard in year 1814, till now many audio visual aids have come to help simplify teaching and learning process.

Though all the aids have advantages and disadvantages, the use of it depends largely on the situation where teaching and learning process takes place.

For eg. a group discussion need Blackboard or Overhead projector and a large class room requires power point presentation. Just because newer audio visual aids are available, the utility and importance of old audio visual aids should never be underestimated.

The audio visual aids help

1. Improve effectiveness of communication
2. Improve audience perception of presenter
3. Improve confidence of the speaker.

Power Point presentation is most recent and widely used audio visual aid. Though it is fascinating and make teaching and learning process more attractive, we need to be aware of its pitfall too.

### **Commonly Used Audio-Visual Aids are**

1. Flipcharts
2. Slide shows
3. Illustrations
4. Audio tapes
5. Multimedia
6. 3D models
7. Blackboards
8. Overhead projectors
9. Computer graphics
10. Videos
11. Physical objects

Each aid mentioned above has its own Advantages and Disadvantages. Its up to the teaching and learning scenario that decide use of appropriate aid.

## **BLACK BOARD**

*"The inventor of blackboard deserves to be ranked the best contributors to learning and science, if not the best benefactors of mankind".  
Dumstead 1841*

### **Introduction**

It is a reusable writing surface on which texts / drawings are made with sticks of calcium sulfate (Chalks)

Black board is term used in united kingdom and Chalk board in United states.

Recently green coloured boards are made use because Green colour is considered easier on eyes.

It was James Pillians from Scotland who invented blackboard.

### **Following are the Do's and Don't's while using blackboard**

1. Clean the surface before you start writing
2. Start writing from left corner to right corner
3. Write in straight rows

4. Write short sentences
5. Draw diagrams if, ten mins before class.
6. For diagrams use only two colours–White and yellow.
7. Don't talk while writing
8. Don't write at sides and Below
9. Don't pre write things on board, unless charts
10. Put one concept at a time
11. Rub clean, once everyone has finished copying.
12. Write Large letters
13. Avoid abbreviations unless standard ones.

### **Two important Rules to be followed while using blackboard**

1. Visibility –All the participants should be able to visualize the content written on black board.
2. Legibility- The writing should be legible and easily readable by participants.

### **The Advantages of Blackboard are**

1. Its a simple tool
2. Cost effective
3. Available everywhere
4. No electricity required
5. No dark room required
6. Small groups are best taught by using Blackboard
7. The teacher need to be prepared about the subject
8. The speed of teaching and learning can be controlled.

### **The Disadvantages of Blackboard are**

1. Its not for larger audience
2. Cannot be used to show tables, graphs, Charts.
3. It has Limited speed
4. Its very Dusty
5. The material written on it has Limited visibility.
6. Advance preparation of materials is not possible.

### **Preparing overhead transparencies**

Overhead Projectors is another widely used aid in teaching and learning process.

The materials required for use of the projector are OHP pens, Transparencies and Template.



### **Following are the Do's and Dont's while making Overhead transparencies**

1. Use blue, black and or green colors to write.
2. Capital letters for titles only.
3. Regular and even lettering.
4. Not more than 6 words in line.
5. Preferable to use typed rather than handwritten script
6. Use a type size that is big enough to be read by the whole audience — for example, at least 20 points
7. Make sure that the color of your text works—for example, dark print on a pale background
8. Limit each transparency to one idea or concept
9. Use a clear, systematic layout.
10. Max 36 words per slide, Max 6 - 8 lines

### **Don't**

1. Use small print
2. Use overhead transparencies packed with tables and figures
3. Use light Colors
4. Try to put too much information on a single transparency
5. Overload.

### **Using over head projector**

- The sequence of actions when using an overhead projector-  
turning off the light,  
↓  
recovering the slide,  
↓  
placing the next slide on the table,  
↓  
turning on the light.

- Common mistake is to leave the projector on throughout the presentation
- Make sure that the information you put on your transparencies will be legible by all of your audience.
- Put number to all sheets.
- Use overlays
- Darken room before projecting radiographs.
- Give audience enough time to read.
- Maintain eye to eye contact.

### **Advantages**

1. Very common equipment
2. Easy to use
3. Can be prepared quickly
4. Transparencies can be stored.
5. Enable effective interaction with the audience
6. Can be used over and over again
7. Maintain eye contact with the learners.
8. Not require the room to be blacked out
9. The OHP is also clean, quiet, and 'user friendly'
10. Requires no technical skill or knowledge on the part of the operator
11. Materials can be prepared at short notice.
12. On spot addition or alteration possible.

### **Disadvantages**

1. Requires power supply
2. Can be noisy
3. Light can distract
4. Can look low-tech.
5. Needs Maintenance.
6. Liable to break down.



## POWER POINT

### Introduction

Robert Gaskins and Dennis Austin invented PowerPoint in the year 1987 and sold it later to Microsoft. PowerPoint is widely used by business people, educators, students, and trainers and among the most prevalent forms of persuasive technology.



**Following are the preferred guidelines towards preparing power point slides.**

### 1. Presentation Design

- a. Don't overload your slides with too much text or data.
- b. Let the picture or graphic tell the story. Avoid excess text in the slides.
- c. Number your slides and give them a title.
- d. You can add a logo and other graphics to every slide using the slide master feature.

### Visual elements

- a. The title default size is 44. Use a sans serif font for titles.
- b. Use contrast: light on dark or dark on light.
- c. Graphics should make a key concept clearer.
- d. Place your graphics in a similar location within each screen.

### Text

- a. Font size must be large enough to be easily read. Size 28 to 34 with a bold font is recommended.
- b. It is distracting if you use too wide a variety of fonts.

### Numbers

- If you have more than 12-15 numbers on a slide, that's probably too many.

### Statistics

- Use the same scale for numbers on a slide. Don't compare thousands to millions.

### **Charts**

- a. Charts need to be clearly labeled. You can make more interesting charts by adding elements from the drawing toolbar.
- b. Numbers in tables are both hard to see and to understand. There is usually a better way to present your numerical data than with columns and rows of numbers. Get creative!
- c. PowerPoint deletes portions of charts and worksheets that are imported from Excel, keeping only the leftmost 5.5 inches.

### **Backgrounds**

- a. Backgrounds should never distract from the presentation.
- b. Backgrounds that are light colored with dark text, or vice versa, look good. A dark background with white font reduces glare.
- c. Consistent backgrounds add to a professional appearance.
- d. For a long presentation, you may want to change background designs when shifting to a new topic.

### **Excitement**

- a. Sounds and transition effects can be annoying hence use them sparingly.
- b. Animation effects can be interesting when used in moderation.
- c. Too much animation is distracting.
- d. You can insert video and audio clips into PowerPoint.

### **Advantages**

- 1) It works best for things that are presented visually, not verbally
- 2) It is easy to create visuals.
- 3) Can add notes pages
- 4) Can easily add media and recordings
- 5) Master slide make presentation consistent.
- 6) More exciting than a simple word document.
- 7) Excitement in audience about what slides will reveal.
- 8) Can show videos, pictures which help understand the subject better.

### **Disadvantages**

- 1) It masks the thought process.
- 2) It gives the outcome, but removes the process.
- 3) It takes too much control away from the presenter.

- 4) Instead of a visual aid for the speaker, the speaker becomes an audio for the slides.
- 5) Non verbal cues like eye contact, posture are lost.
- 6) Animations distract audience
- 7) Soft ware conflicts may be barrier to use in different computers
- 8) Needs constant power supply
- 9) Projectors are very costly.

### **Do's**

- 1) Understand your target audience before presentation
- 2) Simpler the slide, much is achieved.
- 3) Use power point for visual information.
- 4) Avoid distractors and animations.
- 5) Put one concept in each slide.
- 6) Include more images that excess text
- 7) Spell Check before projection

### **Don't's**

- 1) Read slides made by others.
- 2) Over load slides with excess of information.
- 3) Add too much effects.
- 4) Use too bright colours.

### **References**

1. Bates AW. Technology, open learning and distance education. London: Routledge, 1995
2. Bankerd, Kathy. "How to Optimize Projection Technology: Using Fonts, Graphics, and Color to Maximize the Effectiveness of Your Presentation". Syllabus. November/December 1997.
3. Bird, Linda. "Avoid the Mistakes of PowerPoint Rookies." Smart Computing. January 2001.
4. Brown, David G. "PowerPoint-Induced Sleep." Syllabus. January 2001.
5. Richard Farrow. ABC of learning and teaching in medicine: Creating teaching materials. BMJ, Apr 2003; 326: 921–923.
6. Producing Teaching Materials (2nd ed.), by H.I. Ellington and P. Race; Kogan Page, London, 1993.
7. A Guide to the Use of the Overhead Projector, by R.W. Rowatt; Scottish Council for Educational Technology, Glasgow, 1980.

8. The Overhead Projector, by A Vincent; Educational Foundation for Visual Aids, London, 1970.
9. Electronic Lecturing: Basic Introduction to PowerPoint, by S. Earl and S. Allan, The Robert Gordon University, 1995.
10. [www.robertgaskins.com](http://www.robertgaskins.com)