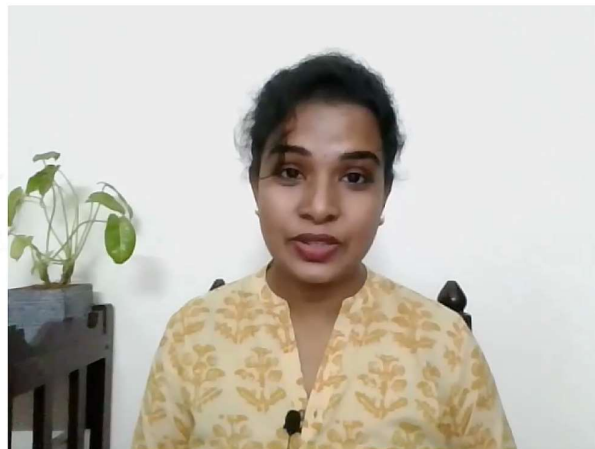


## Know the visual aids

Aswathy Das, Assistant Professor  
 Lekshmi Jayadev, Curriculum Developer  
 Amritha G, Curriculum Developer  
 Prof. Jay Misra, Consulting Professor  
 MBA, Harvard  
 Amrita Vishwa Vidyapeetham

### Learning objectives

- Learn the different types of visual representations and their uses.

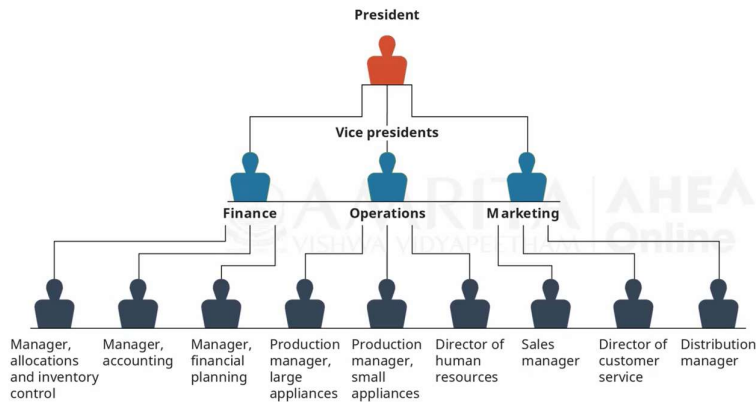


### Tables

- Covers concepts, figures, ideas
- Used to present
  - Time-series data
  - Details of several items
  - Ranking, volumes, prices
  - Relationships and ratios
  - Several parameters

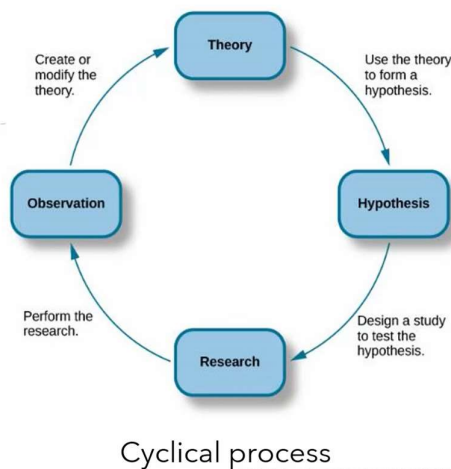
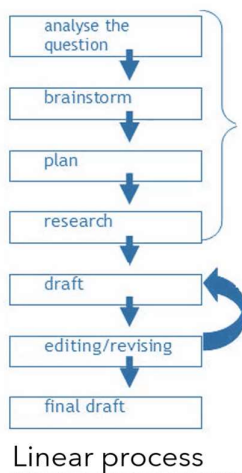
		%			Comparisons		
Group	N	positive	neutral	negative	$\chi^2$	df	p
Q1 (a)	I prefer to have written instructions for experiments						
University group	150	73	7	20	0.9	4	ns
School group	150	70	8	22			
Q1 (b)	Practical work helps my understanding of Physics topics						
University group	150	34	11	55	3.9	4	ns
School group	150	38	7	55			
Q1 (c)	Discussions in the laboratory enhance my understanding of the subject						
University group	150	70	8	22	2.4	4	ns
School group	150	65	10	25			
Q1 (d)	I felt confident in carrying out the experiments in Physics						
University group	150	52	12	36	13.7	4	< 0.05
School group	150	44	15	41			
Q1 (e)	The experimental procedure was clearly explained in the instructions given						
University group	150	31	14	55	14.8	4	< 0.01
School group	150	46	11	43			
Q1 (f)	I was so confused in the laboratory that I ended up following the instructions without understanding what I was doing						
University group	150	63	12	25	1.1	4	ns
School group	150	65	9	26			
Q1 (g)	There was good linkage between experiments and the relevant theory						
University group	150	36	15	49	94.4	4	<0.001
School group	150	68	11	21			

# Charts



Organization structure chart or Hierarchy chart

# Charts



Process chart or Flow chart

1. Linear process
2. Cyclical process

## Charts



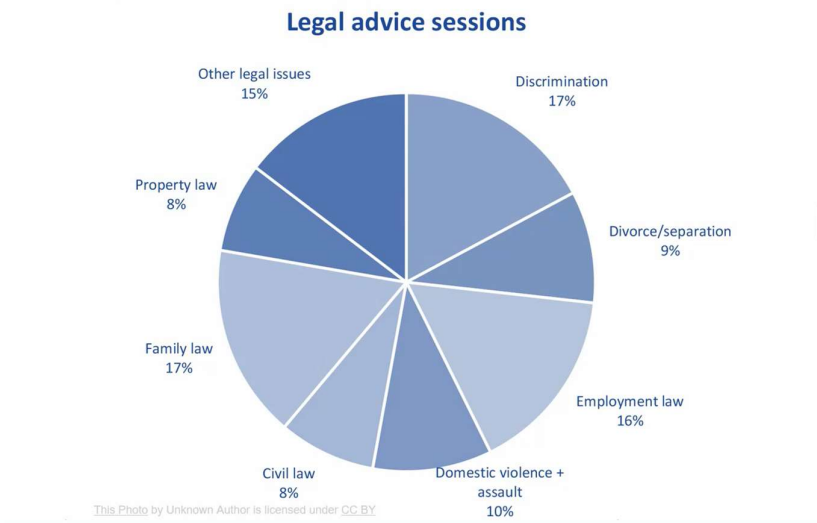
Relationship  
chart

## Charts



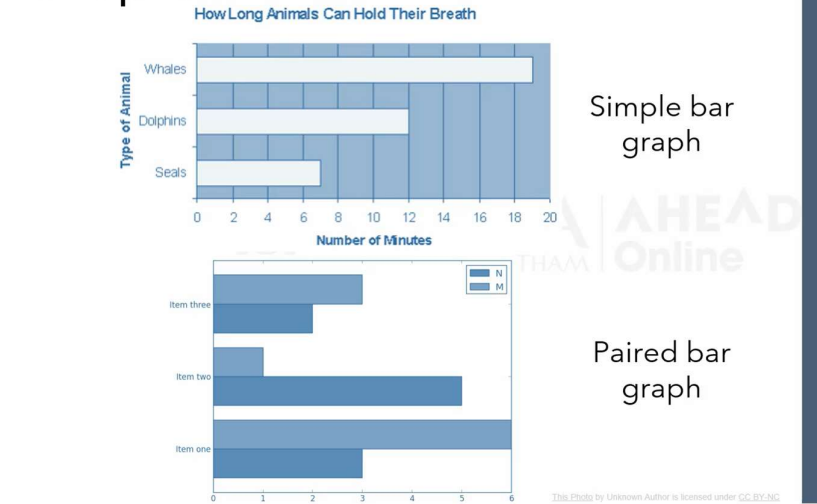
Pyramid  
chart

# Charts



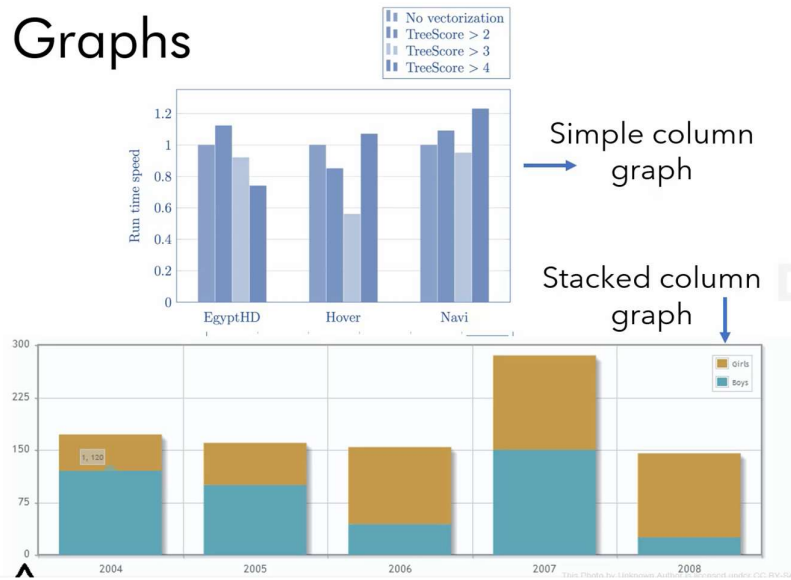
Pie chart

# Graphs



Bar graphs

# Graphs



Column graphs

# Graphs



Line graphs



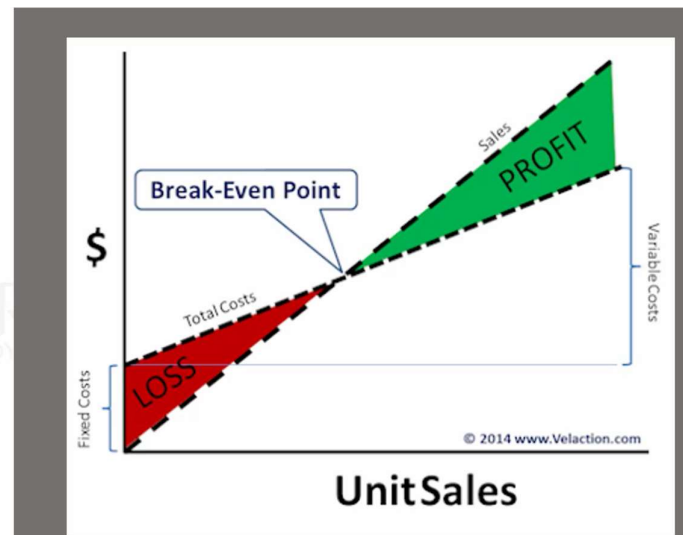
## Other graphics

- Icons
- Emoji
- Cartoons



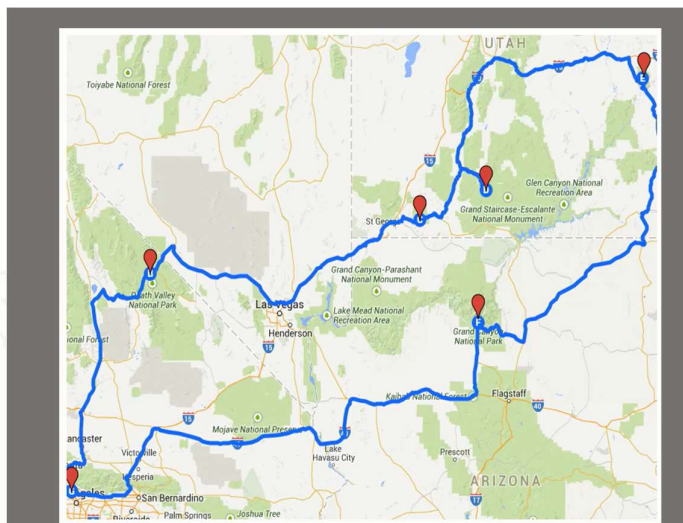
## Other graphics

- Icons
- Emoji
- Cartoons
- Break-even charts



## Other graphics

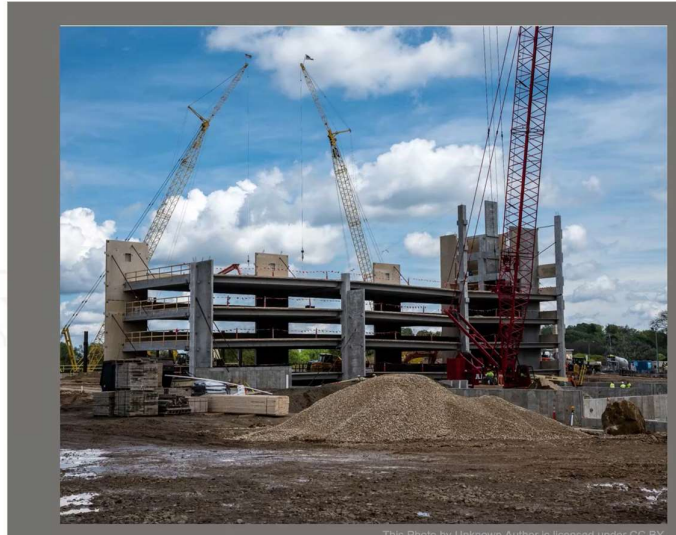
- Icons
- Emoji
- Cartoons
- Break-even charts
- Maps





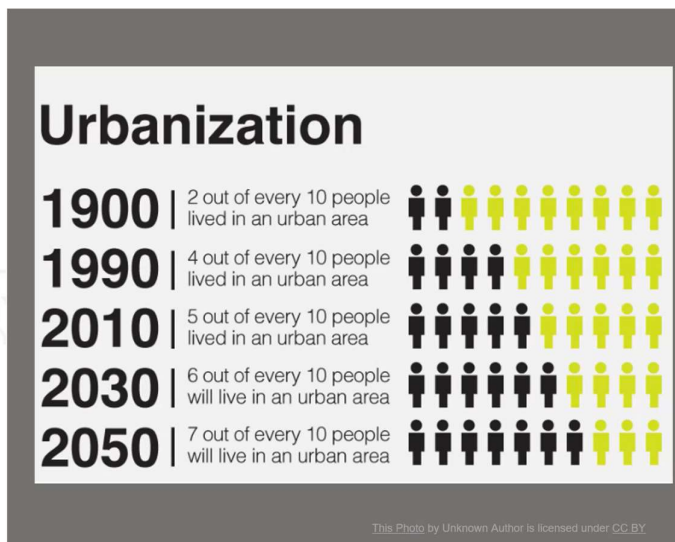
## Other graphics

- Icons
- Emoji
- Cartoons
- Break-even charts
- Maps
- Pictures



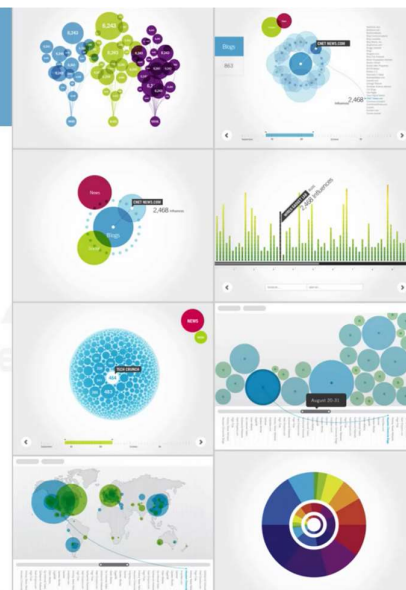
## Other graphics

- Icons
- Emoji
- Cartoons
- Break-even charts
- Maps
- Pictures
- Pictogram



## Make visuals self-explanatory

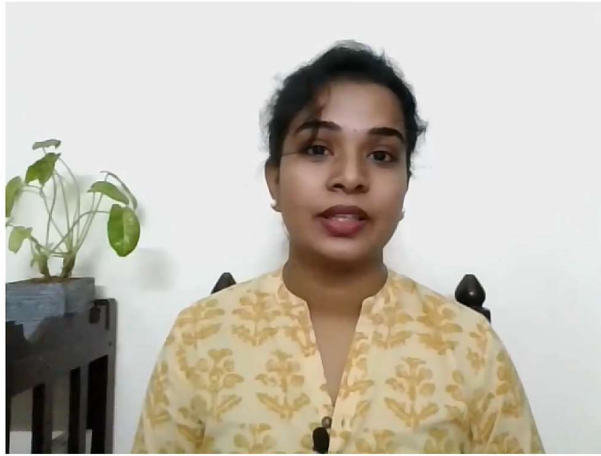
- Caption or heading
- Description of legends
- Neatness, proportion and accuracy
- Integrated with the text
- Placed as close to the first reference as possible
- Source acknowledgements
- Colours used should be pleasing





## To sum up

- Each visual aid has its own advantages and disadvantages.
- Tables, charts and graphs are helpful in presenting complex relationships in a simple yet effective manner.
- Graphs and charts are meant to be self-explanatory.



## Describing graphs

Aswathy Das, Assistant Professor  
Lekshmi Jayadev, Curriculum Developer  
Amritha G, Curriculum Developer  
Prof. Jay Misra, Consulting Professor  
MBA, Harvard  
Amrita Vishwa Vidyapeetham

### Importance of graphical description

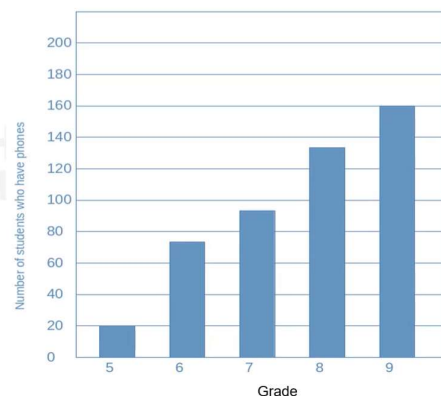
- Graphs, flow charts, bar charts, pie charts and tables are all set of symbols and are codes.
- To understand the meaning, they need to be decoded.
  1. Introduce the graph.
  2. Analyze it.
  3. Provide a summary.



### I. Introduce the graph

- Start "The graph shows..."
- This gives the trend or trends.
- Don't describe the X and Y axis.
- This graph shows the results of a survey in which people aged 16 and over were asked about their preferred devices for accessing the internet.
- The graph gives information about Burnaby Public Library between 2011 and 2014. It shows how many library books people read over this four-year period.

"Students who have cellphones at school"



## II. Analyse the graph

- Give an overview of the most important features of the information.
- Compare and contrast the data, NOT just list the data.
- Use a wide variety of sentence structures.
- Use linkers for appropriate transitions.
- For making comparisons- *slightly more than, by far the highest, as ... as, compared to, double the number of, correlation between*
- Approximating- *nearly, roughly, almost*

## Analyse the graph

- To help identify the patterns, you need to look for the
- peaks (high points) and troughs (low points)
- periods when the figures remain steady (show little or no change)
- periods when the figures fluctuate (show a lot of changes)

## Describing graphs

Verbs	<ul style="list-style-type: none"><li>• rise, increase, grow, go up to, climb, boom, peak, fall, decline, decrease, drop, dip, go down</li></ul>
Adjectives	<ul style="list-style-type: none"><li>• sharp, rapid, huge, dramatic, substantial, massive, considerable, significant, slight, small, minimal</li></ul>
Adverbs	<ul style="list-style-type: none"><li>• dramatically, rapidly, hugely, sharply, steeply, considerably, substantially, significantly, slightly, minimally, steadily, exponentially, proportionally</li></ul>

## Describing graphs

- Eg. The population rose slowly/steadily/gently/gradually.
- There was a slow/steady/slight/gentle/gradual rise in the population.
- In written reports we use approximation to round numbers up or down.
- 134,575: just over 135,000, approximately/roughly/around/about 135,000;
- 134,575 compared to 396,530: over triple, around 200% more, about three times as many, roughly 260,000 more, about a third as many, approximately one in three, far more, for less

## III. Concluding the description

- Always provide a short summary.
- Eg. It can be seen from the chart that overall 2007 was the best year for book sales in all five categories.

### To sum up

- Learning to describe visual aids is as important as learning to add them in your documents.
- Graphical description follows a three-step process
- Use a variety of adverbs and adjectives to describe the changes in a graph.



