



Bab 3. Seni Presentasi

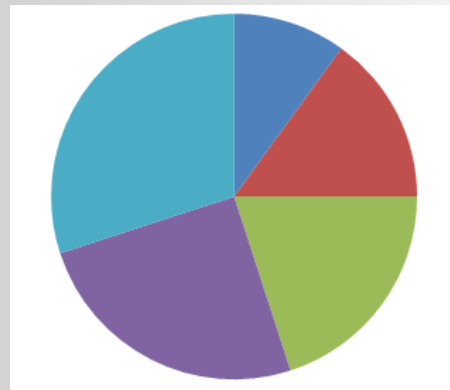
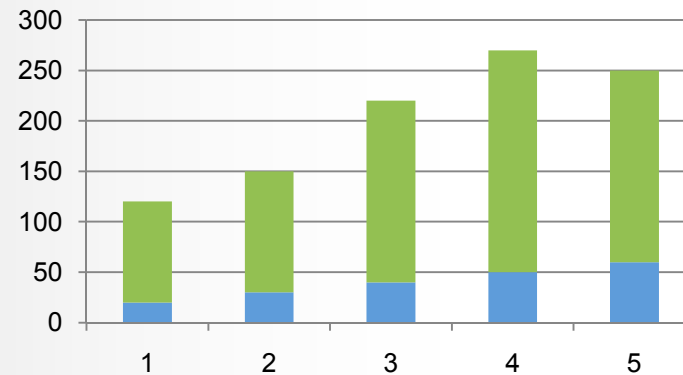
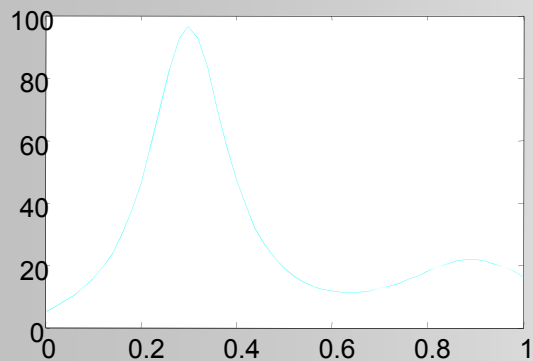
It is not what you say, but how you say it.
—A. Putt

Dr. Yeffry Handoko Putra, M.T



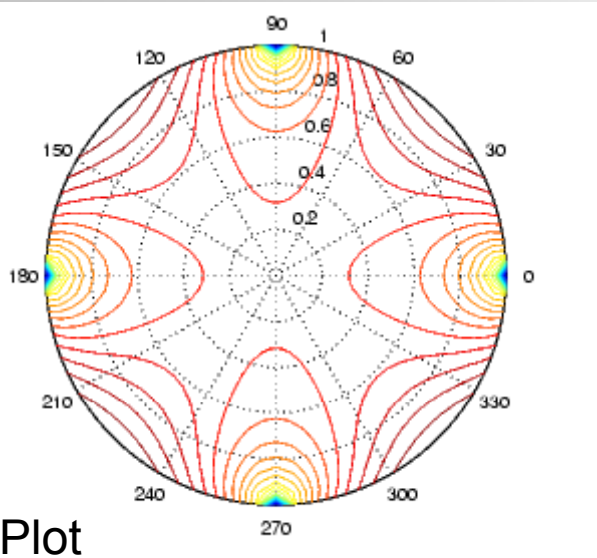
Art of Presentation

- ❖ Memadukan gambar, kata-kata dan grafik untuk menjelaskan hasil dan analisis
- ❖ Jenis Grafik :

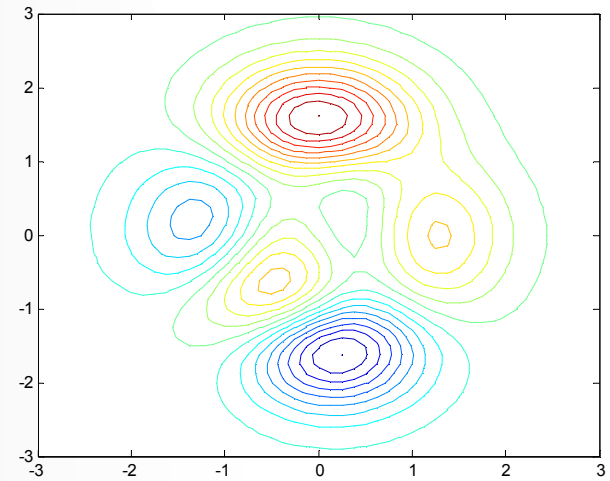




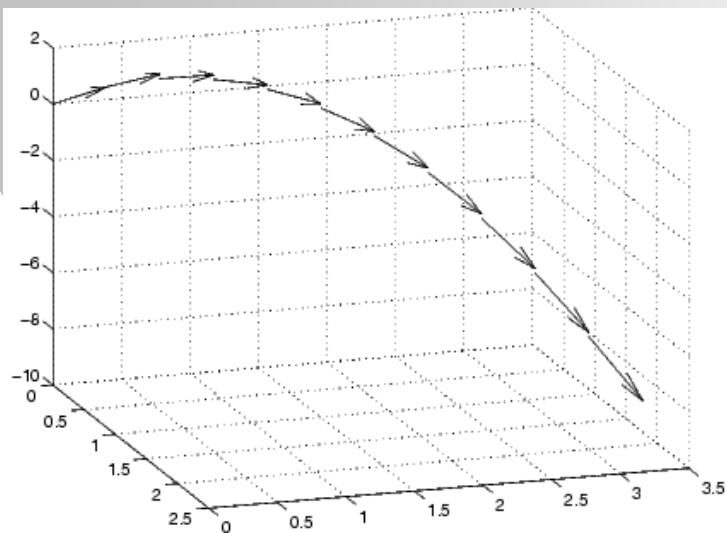
Polar Plot



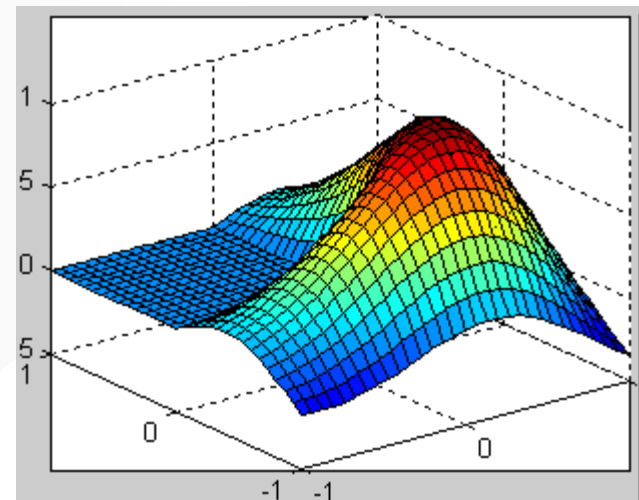
Contour 2D



Quiver 3D Plot

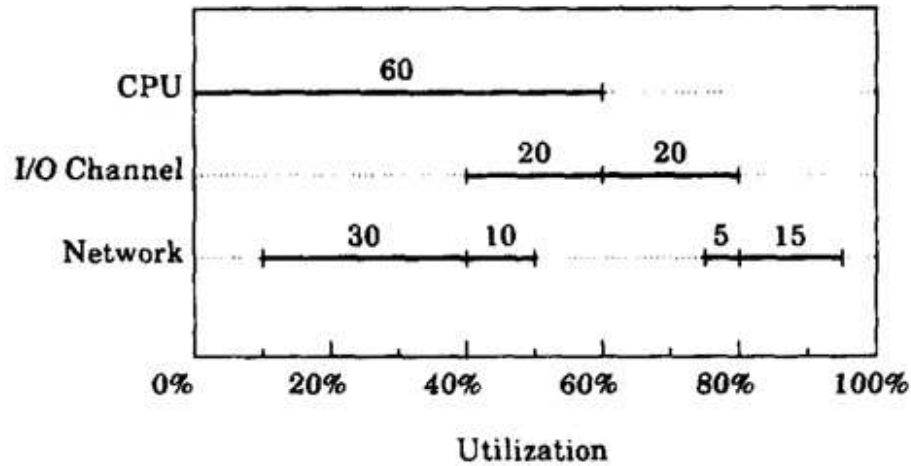


Mesh 3D

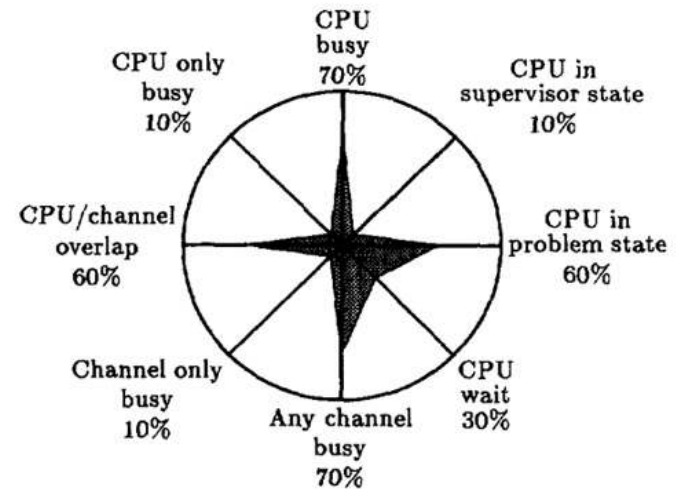




Graph for Computer Analysis



Gantt Chart

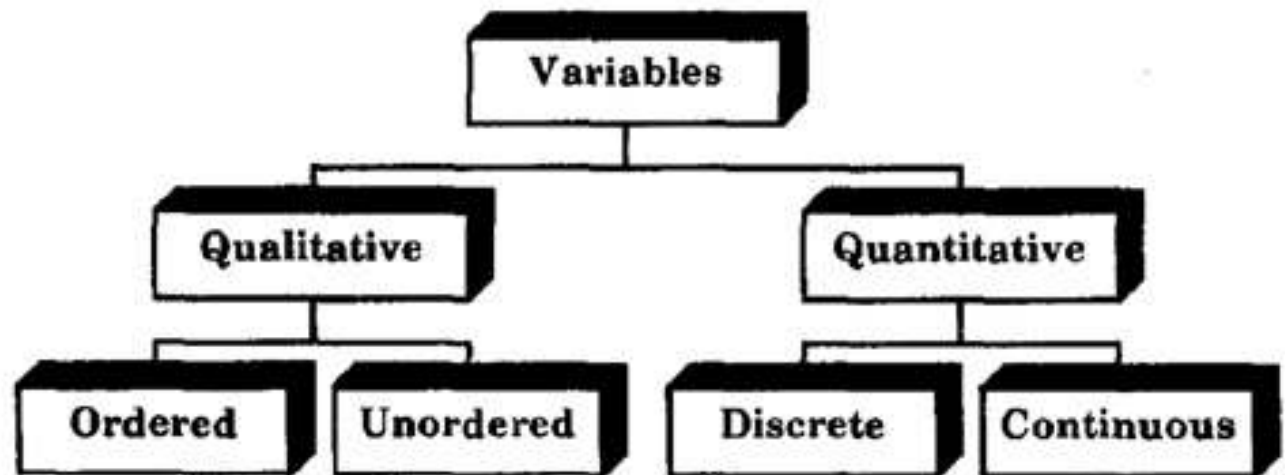


**Kiviat Graph
(radar diagram)**



Type of Variables

- ❖ **Variabel Kuantitatif:**
Menyatakan nilai secara numerik
 - Variabel Diskrit
 - Variabel Kontinu
- ❖ **Variabel Kualitatif :**
Menentukan kelas, level atau kategori
 - Terurut (ordered)
 - Tidak terurut (unordered)





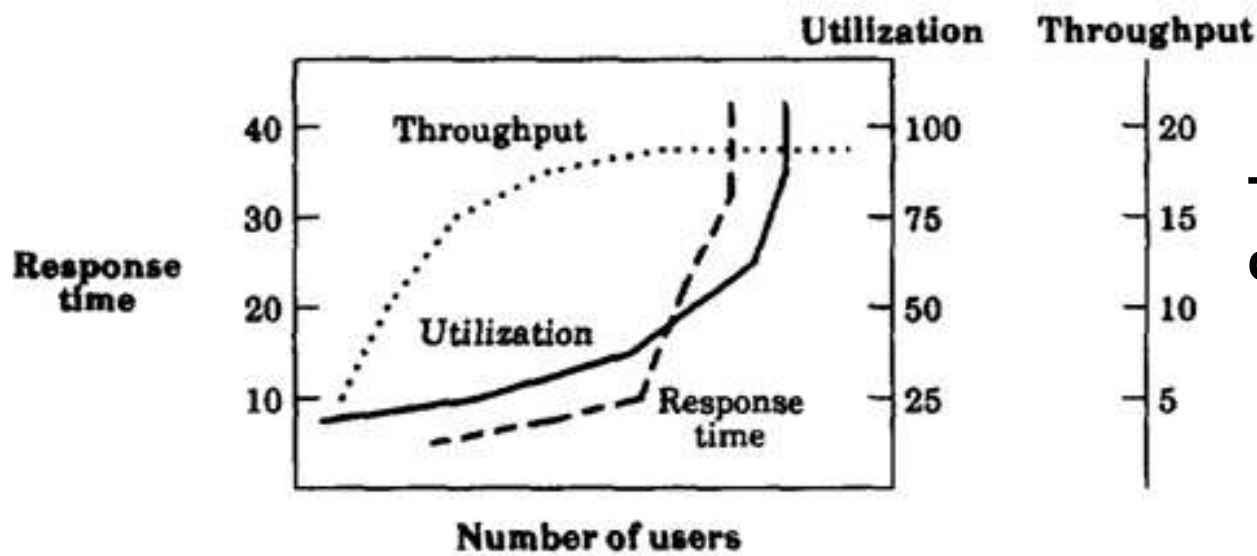
GUIDELINES FOR PREPARING GOOD GRAPHIC CHARTS



- ❖ Mudah dimengerti (*Require Minimum Effort from the Reader*)
- ❖ Informasi yang lengkap
- ❖ Sesuai dengan pendidikan audience
- ❖ Pemilihan tinta dan warna yang tepat
- ❖ Gunakan aturan baku penulisan dan penempatan grafik
- ❖ Hindari kerancuan (Ambiguity) pada labeling

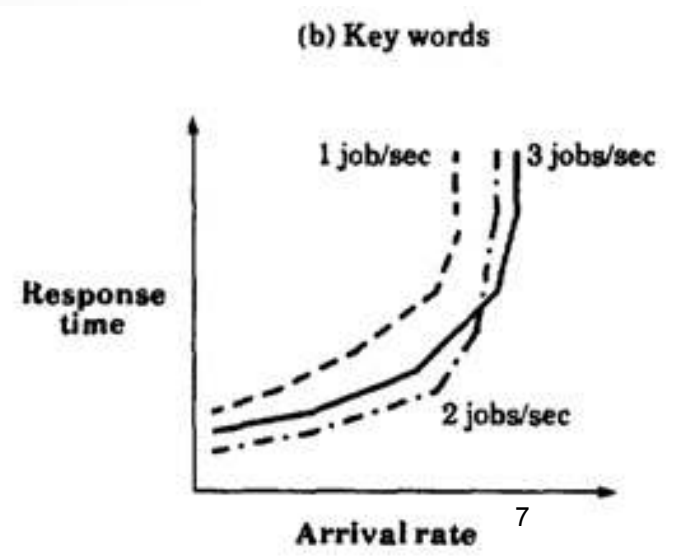
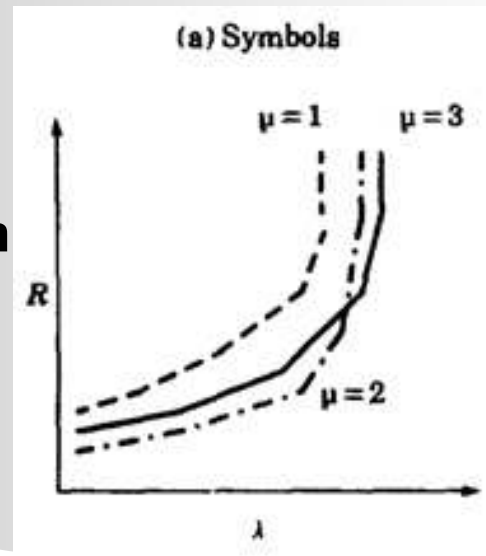


Example for graph that hard to read



Terlalu banyak variabel yg diplot

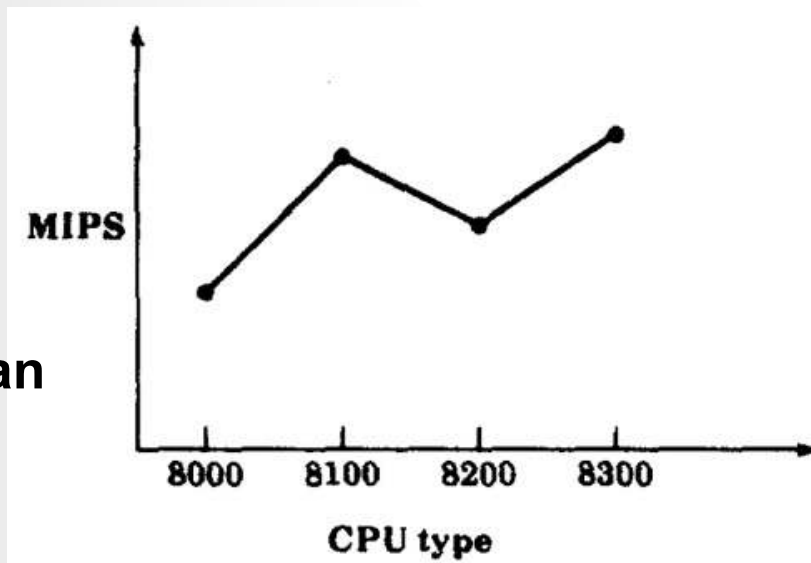
Simbol tanpa keterangan
Skala yang salah





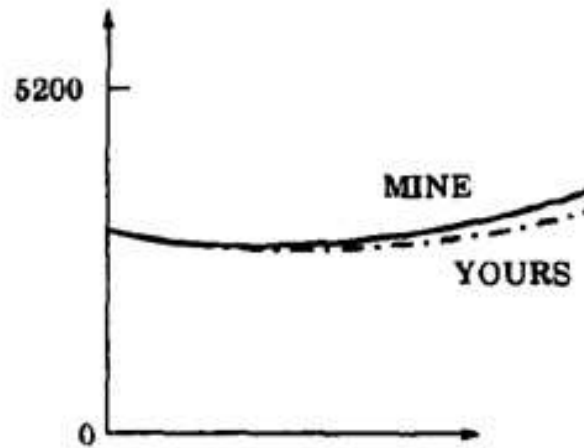
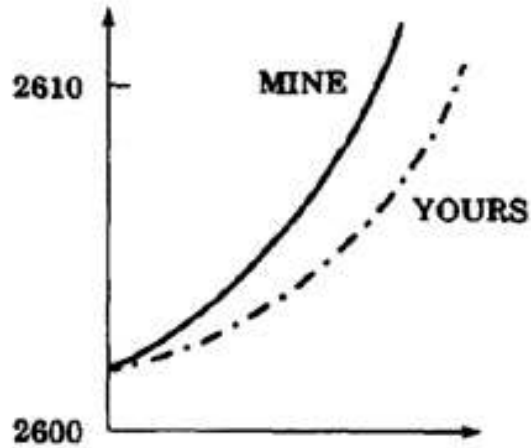
**Line Chart yang tidak tepat
Harusnya pakai column chart**

Informasi ekstra yang berlebihan

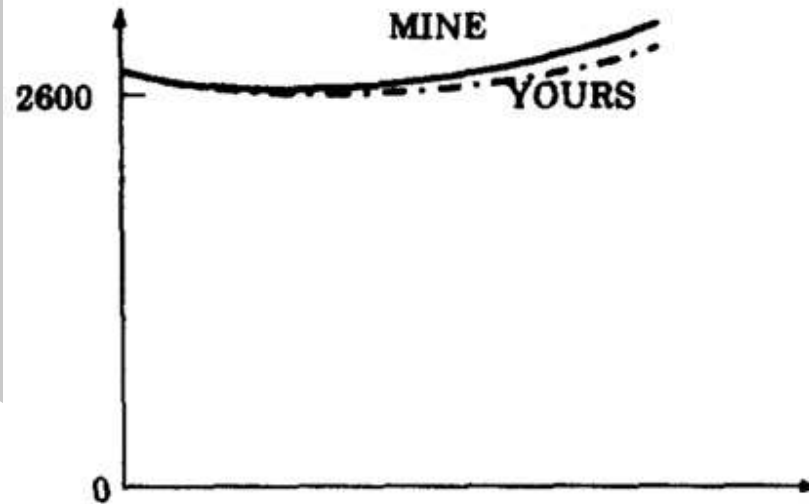




Permainan Gambar (Pictures Games)



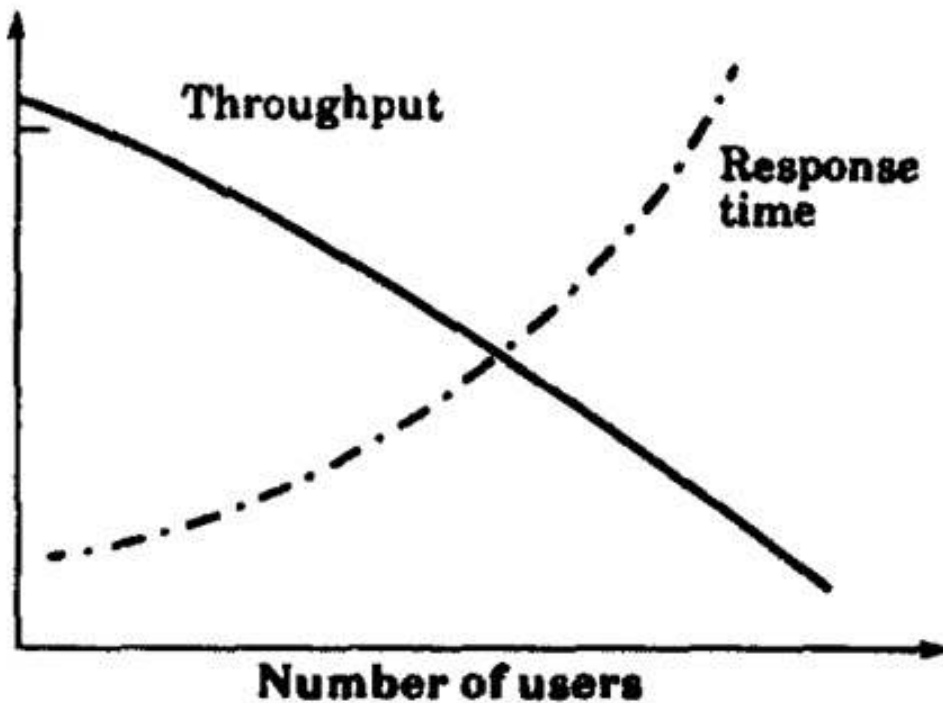
Menggunakan titik origin tidak nol untuk meyakinkan perbedaan



Cara yang tepat



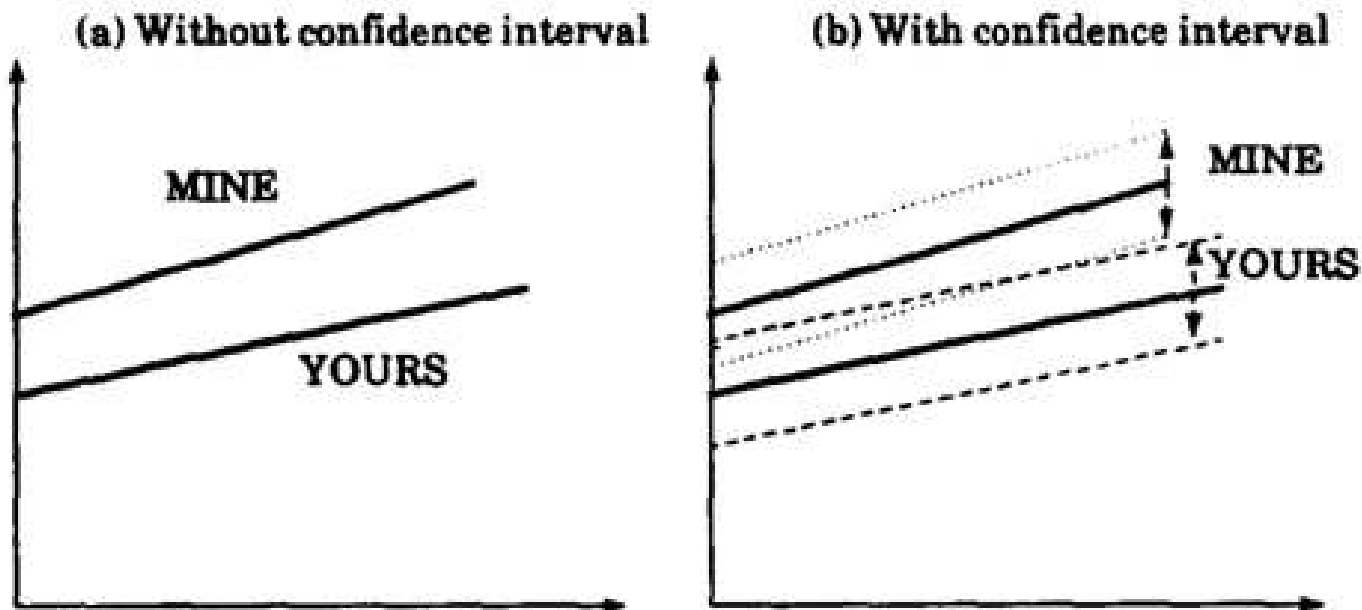
Permainan Gambar (Picture Games)



Dua graph dalam satu picture bisa memperkuat / memperlemah dampak



Permainan Gambar (Picture Games)

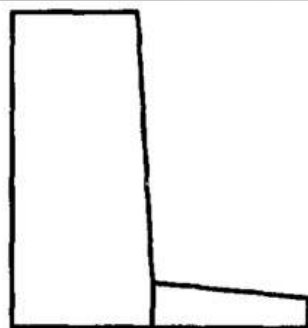
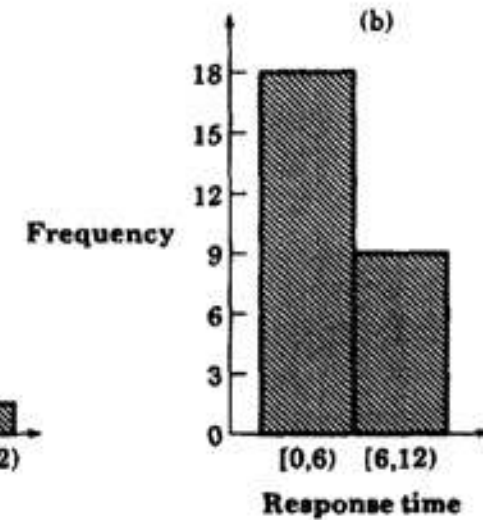
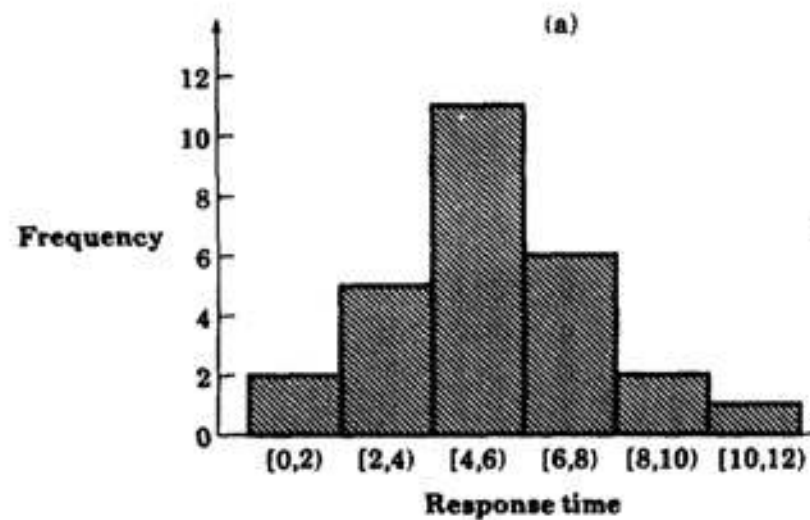


Ekperimen random dari beberapa kali percobaan tidak disertai dengan mean (confidence interval)



Permainan Gambar (Picture Games)

Ukuran sel yang tidak tepat
-too small or too big cell size



MINE
Performance = 2

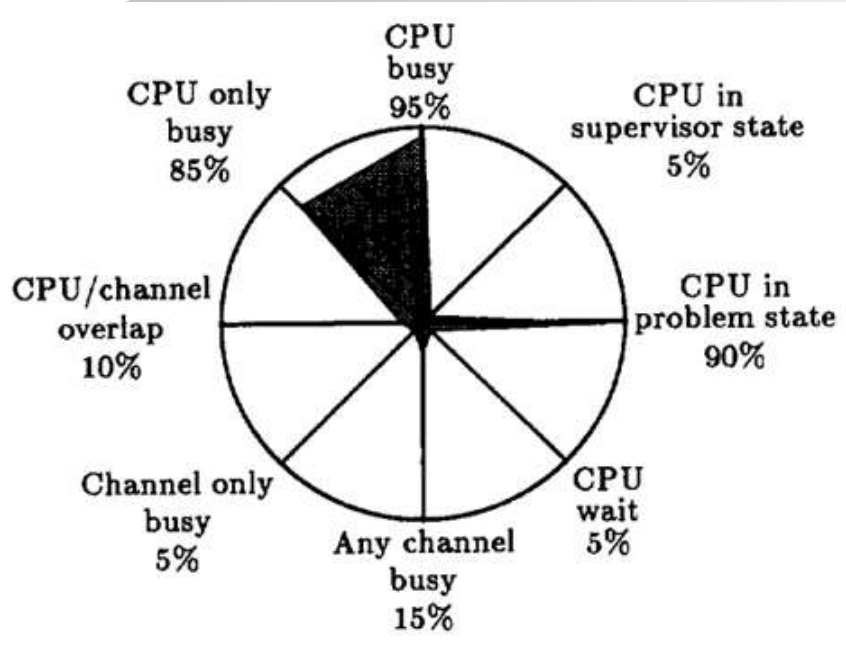


YOURS
Performance = 1

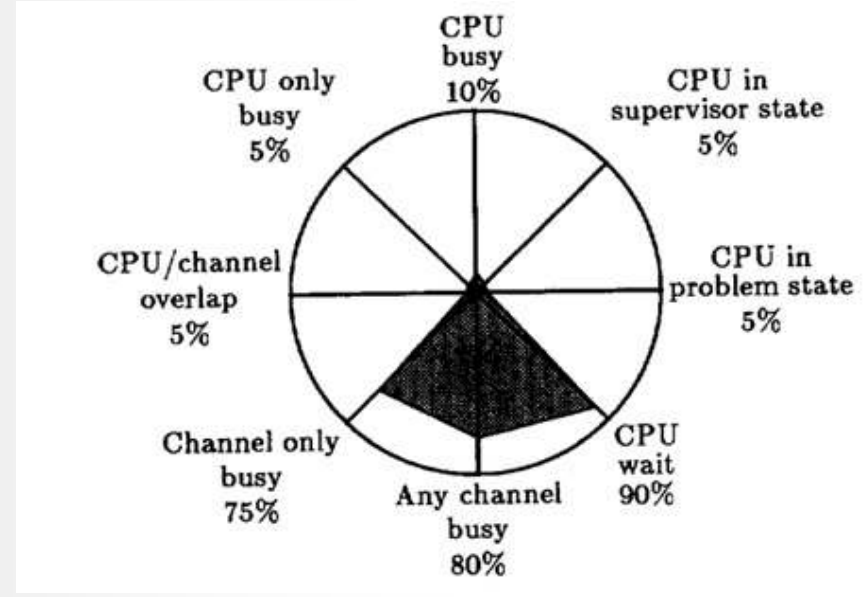
Skala yang berbeda



Contoh Kiviati Graph



CPU keelboat



I/O wedge

Analisa dengan Figure of Merit (FOM)

$$FOM = \left[\frac{1}{2n} \sum_{i=1}^n (x_{2i-1} + x_{2i+1})(100 - x_{2i}) \right]^{1/2}$$

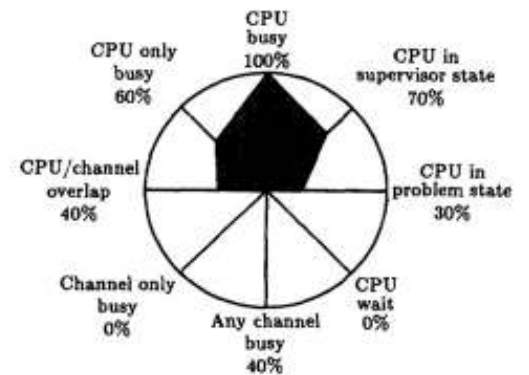


Contoh FOM pada Kiviati Chart

System	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8
A	100	60	40	0	40	0	40	60
B	70	30	40	30	70	30	40	30

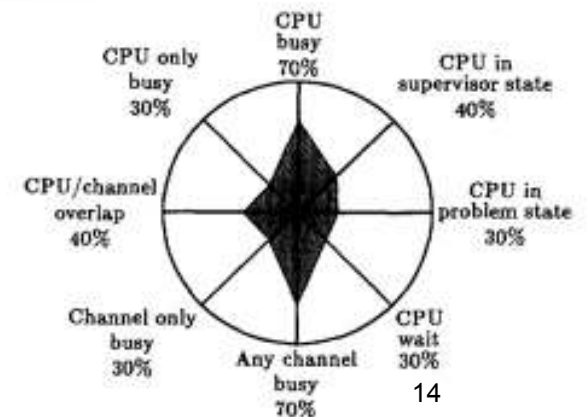
Untuk sistem A

$$\begin{aligned}
 FOM_A &= \left[\frac{1}{8} \{ (100 + 40)(100 - 60) + (40 + 40)(100 - 0) \right. \\
 &\quad \left. + (40 + 40)(100 - 0) + (40 + 100)(100 - 60) \} \right]^{1/2} \\
 &= \left[\frac{5600 + 8000 + 8000 + 5600}{8} \right]^{1/2} \\
 &= \sqrt{\frac{27,200}{8}} = 58
 \end{aligned}$$



Untuk sistem B

$$\begin{aligned}
 FOM_B &= \left[\frac{1}{8} \{ (70 + 40)(100 - 30) + (40 + 70)(100 - 30) \right. \\
 &\quad \left. + (70 + 40)(100 - 30) + (40 + 70)(100 - 30) \} \right]^{1/2} \\
 &= \left[\frac{7700 + 7700 + 7700 + 7700}{8} \right]^{1/2} \\
 &= \sqrt{\frac{30,800}{8}} = 62
 \end{aligned}$$





SCHUMACHER CHARTS

Management indicator	Network bandwidth wasted			Explanation
Technical indicators	% packets lost	% packets with errors	% packets out of order	
+3				1. Link failure
+2				
+1				Normal
Mean				
-1				Explain
-2				
-3				
This week	10.5%	3.2%	1.5%	
YTD mean	5.5%	3.5%	5.0%	
YTD low	0.5%	0.2%	1.5%	
YTD high	50.5%	32.2%	45.5%	
Goal	4%	1%	5%	

Untuk laporan periodik