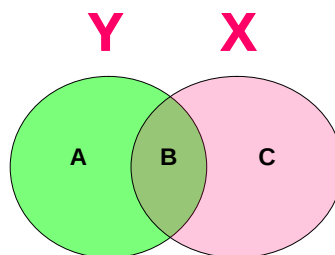


Korelasi Multivariate

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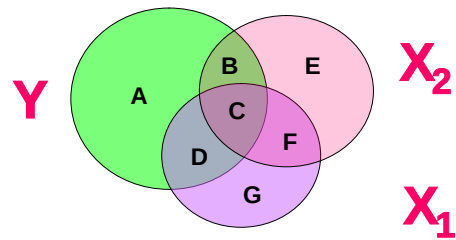
Korelasi X-Y

$$r^2_{x1y} = B$$

Residu Korelasi X-Y

$$1 - r^2_{x1y} = A$$

Peranan **Gaya Kepemimpinan Transformasional Guru** terhadap **Motivasi Belajar Siswa** adalah sebesar 13,5 % dan sisanya 66,5%
Motivasi Siswa dipengaruhi oleh faktor lain
(Nuryanto, 2003)



Korelasi Ganda

$$R^2_{YX_1X_2} = B + C + D$$

Regresi

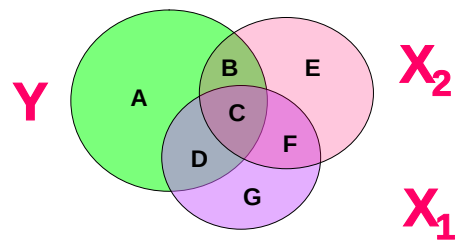
$$F = B + C + D$$

Residu Regresi

$$A = 1 - (B + C + D)$$

Multi Kolinieritas

$$r^2_{X_1X_2} = B + C$$



Korelasi Semi Partial (Part Correlation)

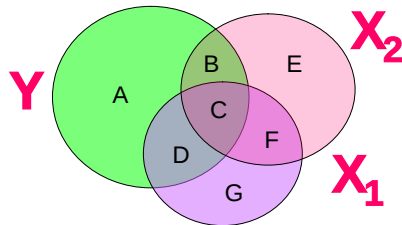
$$\begin{aligned} r^2_{1(2,3)} &= R^2_{123} - r^2_{13} \\ &= b / (a + b + c + d) \end{aligned}$$

$$r_{1(2,3)} = \frac{r_{12} - r_{13}r_{23}}{\sqrt{1 - r^2_{23}}}$$

$$\begin{aligned} r^2_{1(3,2)} &= R^2_{123} - r^2_{12} \\ &= d / (a + b + c + d) \end{aligned}$$

$$r_{1(3,2)} = \frac{r_{13} - r_{12}r_{23}}{\sqrt{1 - r^2_{23}}}$$

Korelasi Partial (*Partial Correlation*)



$$R^2_{123} = B + C + D$$

$$r^2_{12} = B + C$$

$$r^2_{13} = C + D$$

$$r^2_{12.3} = (R^2_{123} - r^2_{13}) / (1 - r^2_{13})$$

$$= b / (a + b)$$

$$r_{12.3} = \frac{r_{12} - r_{13}r_{23}}{\sqrt{1 - r^2_{13}} \sqrt{1 - r^2_{23}}}$$

$$r^2_{13.2} = (R^2_{123} - r^2_{12}) / (1 - r^2_{12})$$

$$= d / (a + d)$$

$$r_{13.2} = \frac{r_{13} - r_{12}r_{23}}{\sqrt{1 - r^2_{23}} \sqrt{1 - r^2_{12}}}$$

PENGERTIAN REGRESI

- Memprediksi nilai variabel tergantung (kriterium/criterion) berdasarkan variabel bebas (prediktor)
- Hasilnya adalah **Persamaan Regresi**
- Regresi tunggal → regresi ganda
- Uji Prasyarat yang dilakukan :
 - Distribusi Normal
 - Hubungan linier
 - Multikolinieritas

ASUMSI REGRESI

- **DATA.** The dependent and independent variables should be quantitative. Categorical variables, such as religion, major field of study, or region of residence, need to be recoded to binary (dummy) variables or other types of contrast variables.
- **ASSUMPTIONS.** For each value of the independent variable, the distribution of the dependent variable must be normal. The variance of the distribution of the dependent variable should be constant for all values of the independent variable. The relationship between the dependent variable and each independent variable should be linear, and all observations should be independent.

KOMPONEN REGRESI

- Model Regresi
 - Enter
 - Stepwise
 - Backward Elimination
 - Forward Selection
- Sumbangan Efektif (Effect Size) (R)
- Nilai Prediksi Prediktor secara Simultan (F)
- Nilai Prediksi Tiap Prediktor (b)
- Multikolinearitas

MODEL REGRESI

- **KEYWORD** : Siapa yang 'masuk' duluan akan mendapatkan tempat terbanyak
- Model Regresi
 - Enter
 - Stepwise
 - Backward Elimination
 - Forward Selection