

Scientific Method Notes

Scientific Method - process used to design experiments and communicate results.

Hypothesis - prediction based on prior knowledge

If the IV $\uparrow$ or $\downarrow$ then, the DV $\uparrow$ or $\downarrow$
because reasoning

Can't use circular logic.

If weight $\uparrow$ then time to land $\downarrow$
b/c heavy things fall faster.
is circular because the reason
is a restatement.

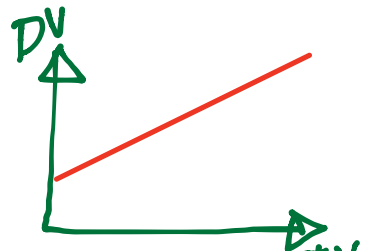
Independent Variable - changed by experimenter

Dependent Variable - measure variable.

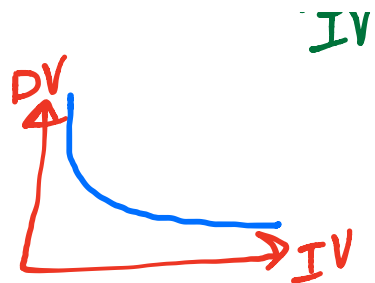
Constant - is intentionally kept at the same value.

Relationships:

Direct - IV $\uparrow$ the DV $\uparrow$

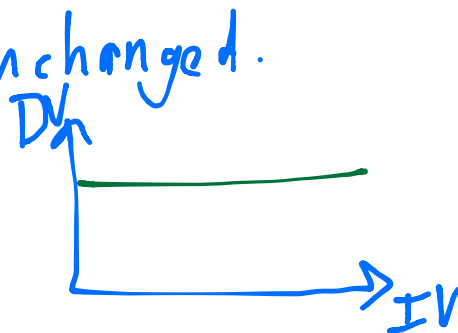


Inverse - $IV \uparrow$ the $DV \downarrow$



No Relationship

- $IV \uparrow$ the DV is unchanged.



Procedure - detailed list of steps

- describes the setup
- lists the levels of IV
- describes the method for measuring the DV.
- includes how constants are held constant.
- use repeat steps x-y to do multiple trials (3 minimum).

Data Collection

- In a table

IV	DV1	DV2	DV3	Av. DV
units	units	units	units	units



- Only METRIC UNITS.