Explicating the Role of Individual Variables in a Study

Every "variable" is either…	Constant	Variable
Measured	1*	2*
Manipulated	3*	4*

	BG	WG	MG
True Exp	Balance all subject variables by **RA**	Balance all subject variables by **CB**	Balance matching variables by **matching**. Balance all other subject variables by **RA**
Quasi Exp	All subject variables are confounds	Seriated nature of IV controls all subject variables	Balance matching variables by **matching**. All other subject variables are confounds
Non-Exp	All subject variables are confound	All subject variables are confounds	Balance matching variables by **matching**. All other subject variables are confounds

Variable Role Explication Script

1. Is the target variable measured or manipulated?
2. Is the target variable the IV ? the DV ?
3. Is the target variable reasonably a constant ?
   - if so … constant value … constant → controlled
   - if so … constant value = 0 … elimination → controlled
4. Is the target variable a matching/yoking variable ?
   - if so … matched → balanced → controlled
5. Based on the research design … Is there RA/CB ?
   - if so … RA → balanced → controlled
6. Answers to 3, 4 & 5 all "no"
   - if so … target variable is a confound
   - if measured variable → initial eq problem
   - if manipulated variable → ongoing eq problem

Every Variable in Any Study has 1 of 8 Roles !!!

1. **Causal Variable/IV 2 or 4***
2. **Effect Variable/DV 2***

Measured/Subject Variables

3. **Control Constant 1***
4. **Control Variable 2***
5. ***Confounding Variable 2****

} **Initial Equivalence**

Manipulated/Procedural Variables

6. **Control Constant 3***
7. **Control Variable 4***
8. ***Confounding Variable 4****

} **Ongoing Equivalence**

subject manipulated IV DV confound control ongoing eq problem
balanced eliminated held constant randomized matched initial eq problem