# DOING RESEARCH/DISCERNING THE WORTH of RESEARCH

Thomas S. Parish, Ph.D.

IV <u>Internal Validity</u> refers to the level of <u>CONTROL</u> that the investigator has over the independent variables, plus other variables (e.g., antecedent variables, confounding variables) too.

**EV** <u>External Validity</u> refers to the level of <u>GENERAL-</u> <u>IZABILITY</u> of the reported data relative to other settings and/or populations.

HVHeuristic Valuerefers to the level of interest,<br/>perceived importance, and/or timeliness of the reportedfindings for the readership and/or theviewership.

	IV	EV	HV
Laboratory experiments	Hi	Lo	??
Field experiments	Mod	Mod	??
Nat. exp. Or field studies (e.g., The "BIG EVENT)	Lo	Mod-Hi	??
Case studies	Lo	Lo	??

What is the primary reason that studies like these are conducted and/or reported? Why should you conduct and/or read studies/experiments such as these?

### **Doing/Discerning Research--2**

#### The "TIME" Dimension in Doing "Good Research"

<b>Retrospective research:</b>	T1 X	T2 O	Т3	
<b>Cross-sectional research</b>	<b>XO</b> 1			
	XO2			
	XO3			
Longitudinal research	X01	XO2		
CS/L Research	AO	AX	AO	A A0
	BO	B	BO	BX BO

CS/L Research-type studies is likely the best choice for RT/CR-type researchers!

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**Campbell & Stanley's Possible Sources of Invalidity:** 

## **Pre-Experimental Designs**:

1.	<b>One-shot case studies</b>	XO
2.	<b>One-group pretest-posttest</b>	studies OXO
3.	Static-group-type studies	AXO
		<b>BO</b>
		<b>Doing/Discerning Research3</b>

## **True Experimental Designs:**

4.	<b>Pretest-posttest control</b>		
	group-type studies	R	AOXO
		R	<b>BOO</b>
5.	Solomon Four Group-		
	type studies	R	AOXO
		R	<b>BOO</b>
		R	CXO
		R	DO
6.	Posttest-only control		
	Group-type studies	R	AXO
		R	BO

Notably, Design #6 is the most valid design, with the fewest encumbrances, and is the recommended design for CT/RTtype researchers who wish to report reasonably valid findings to its readership/viewership.

R = Randomly assigned A, B, C, D = Individual groups X = Treatment O = Observation --+ = No treatment and/or no observation