

TABLE 1
SOURCES OF INVALIDITY FOR DESIGNS 1 THROUGH 6

	Sources of Invalidity											
	Internal					External						
	History	Maturation	Testing	Instrumentation	Regression	Selection	Mortality	Interaction of Selection and Maturation, etc.	Interaction of Testing and X	Interaction of Selection and X	Reactive Arrangements	Multiple-X Interference
<i>Pre-Experimental Designs:</i>												
1. One-Shot Case Study	-	-				-	-			-	-	
	<i>X</i>	<i>O</i>										
2. One-Group Pretest-Posttest Design	-	-	-	-	-	?	+	+	-	-	-	?
	<i>O</i>	<i>X</i>	<i>O</i>									
3. Static-Group Comparison	+	?	+	+	+	-	-	-		-		
	<i>X</i>	<i>O</i>										
<i>True Experimental Designs:</i>												
4. Pretest-Posttest Control Group Design	+	+	+	+	+	+	+	+	-	?	?	
	<i>R</i>	<i>O</i>	<i>X</i>	<i>O</i>								
	<i>R</i>	<i>O</i>										
5. Solomon Four-Group Design	+	+	+	+	+	+	+	+	+	?	?	
	<i>R</i>	<i>O</i>	<i>X</i>	<i>O</i>								
	<i>R</i>	<i>O</i>										
	<i>R</i>		<i>X</i>	<i>O</i>								
	<i>R</i>			<i>O</i>								
6. Posttest-Only Control Group Design	+	+	+	+	+	+	+	+	+	?	?	
	<i>R</i>		<i>X</i>	<i>O</i>								
	<i>R</i>			<i>O</i>								

Note: In the tables, a minus indicates a definite weakness, a plus indicates that the factor is controlled, a question mark indicates a possible source of concern, and a blank indicates that the factor is not relevant.

It is with extreme reluctance that these summary tables are presented because they are apt to be "too helpful," and to be depended upon in place of the more complex and qualified presentation in the text. No + or - indicator should be respected unless the reader comprehends why it is placed there. In particular, it is against the spirit of this presentation to create uncomprehended fears of, or confidence in, specific designs.