

Elements of a Critical Reading (same as → Unit 1 Story Problem Answer Sheet and Hints”)

1. State and tell the type of research hypothesis.	
2. Describe the Stages of the sampling process & procedure Selection rate _____ Response rate _____	3. Describe the participant assignment procedure
	4. Describe the Research Design
5. Describe the data collection procedures	
6. Evaluate the initial equivalence of the study (controls & confounds)	
7. Evaluate the ongoing equivalence of the study (controls & confounds)	
8. Can these results be given a casual interpretation? If not, tell all alternative hypotheses that would describe the findings	
9. How could the research design/process be changed to improve causal interpretability of the results?	
10. Evaluate the utility of these results to the specific application.	

1. Associative or Causal → Look for specific words and/or for how the findings would be applied (to “change” or to “predict” behavior)
2. Steps & procedures
 - 1) Target Population
 - 2) Sampling Frame (complete population vs. purposive)
 - 3) Selected sample (researcher selected vs. invited group/self-selected & simple vs. stratified)
 - 4) Data Sample (volunteerism & attrition)
 - Selection rate = # in selected sample/size of sampling frame
 - Response rate = # in data sample/# in selected sample
3. Which specific assignment procedure was used? RA of individuals, RA of intact groups, Self assignment, Administrative, Arbitrary, No Assignment
4. Use both 1) BG/WG and 2) True Exp/Non Exp to describe the design
5. Tell each of ...
 - the data collection (primary vs. archival)
 - the type (self-report, Observational or Trace)
 - the setting (laboratory, structured setting or field)
6. Evaluate the initial equivalence of the study
 - Is the RA of individuals?
 - If there is no RA of individuals, then all subject variables are confounds
 - Even if there is RA of individuals there may be subject variable confounds revealed by collected data
7. Evaluate the ongoing equivalence of the study
 - Look for both controls and confounds
 - Are there procedural differences between the conditions other than the IV?
 - It is easier to maintain ongoing equivalence of laboratory studies than non-laboratory studies
 - It is easier to maintain ongoing equivalence of shorter studies (manipulation, task & data collection time)
8. Alternative hypotheses include the intended causal variable (from the RH:) and every confound you identified in “7” (if there was no RA of individuals, remember to point out that all subject variables are potential confounds)
9. How would you “fix” each confound, if possible. (if there was no RA of individuals, be sure to suggest that change)
10. Each problem will include a specific application that someone is thinking of using these results to inform.
 - Compare the external validity elements of the study and the intended application
 - Consider the “quality” of the study (studies with poor internal validity are probably not good sources of information)