## CHEAT SHEET: WRITING CER STATEMENTS

## INTRODUCTION

When writing CER statements, start by looking at the evidence. Look at how the evidence connects with the question. The evidence is the glue that holds everything together.

When analyzing the evidence, students can look for the following:

## I. SIMILARITIES AND DIFFERENCES

To be more specific, look for similarities and differences between (a) the control and the trial variable or (b) between trial variables.

If results between a trial variable and control are the same, then we claim the trial variable does not have an effect on the outcome. If the results differ, then we claim the trial variable does have an effect (whether positive or negative) on the outcome.

If the results between trial variables are the same, then we claim the trial variables with similar results have a similar effect on the outcome. If the results differ, then we claim the trial variables differ on their effect on the outcome (and we can explain how they differ too).

## II. TRENDS

If the dependent variable increases in response to increases to the independent variable, then we claim there is a positive relationship or trend between the independent and dependent variables.

If the dependent variable decreases in response to increases to the independent variable (or vice versa), then we claim there is a negative relationship or trend between independent and dependent variables.

## III. MAXIMUMS AND MINIMUMS

When looking at a graph, finding maximums or minimums is done through interpolation. The claim we write (ie. where the minimum or maximum effect occurs, or what minimum or maximum conditions produce a certain effect) depends on what we interpolate.

## EX. SIMILARITIES AND DIFFERENCES



Figure 3. When Only White Milk Was Offered, Students Wasted More Milk. doi:10.1371/journal.pone.0091022.g003
The graph above shows two conditions with different results. When chocolate milk is not available, the amount of milk waste goes up. Thus, researchers can claim that students waste more milk when only white milk is offered.

## EX. TRENDS



According to the graph to the left, as the exposure to smoking scenes increased (ie. MSE Quintile), the likelihood of individuals smoking cigarettes afterwards (ie. smoking prevalence) increased too.

Fig 2. Smoking prevalence vs movie smoking exposure.
doi:10.1371/journal.pone.0148692.g002

