

Sample Size Worksheet

Objective: Compare differences in percentages as sample sizes increase.

Purpose: This activity is designed to provide a demonstration of the importance of sample sizes that are large enough to remove the impact of “outliers” or untrue answers.

Equation for percent: $(\# \text{ that said yes to having siblings}) \div (\text{total \# of respondents}) = \# \times 100 = \text{xx}\%$

Question: Do you have siblings?

Pair Names:

In a pair, record your responses:

Yes:

No:

Calculate the percentage that **do** have siblings!

$(\text{Yes} / \text{Total}) \times 100 = \underline{\hspace{1cm}}\%$

In groups of 4, record responses:

Yes:

No:

Calculate the percentage that **do** have siblings!

$(\text{Yes} / \text{Total}) \times 100 = \underline{\hspace{1cm}}\%$

Record whole group answers from board to compare:

Yes:

No:

Percentage that **do** have siblings:

$(\text{Yes} / \text{Total}) \times 100 = \underline{\hspace{1cm}}\%$

Questions to consider/group discussion:

1. If your numbers remained the same between rounds what can we say about this? If your numbers changed, what can we say about this?

2. Which percentage would you say you believe more? Why?

3. Compare each stage for all telling the truth vs. one liar:
 - a. What do you notice about the differences in results at the different sample sizes?

4. What does this make you think about when looking at data?