

Table 5.3 Three Components of the CLT and What They Do for Researchers

<i>Characteristics of Any Distribution of Sample Means</i>	<i>What Characteristic Does for Researchers</i>
Spread (standard deviation) will always be equal to $SEM_p = \frac{\sigma}{\sqrt{N}}$	Knowing the <i>SEM</i> tells researchers how much sampling error to expect
Center (mean) will always be the population mean	Knowing the mean tells researchers what sample mean to expect
Shape will be normal if the original population's shape is normal OR Shape will <i>approach</i> normal if the sample size of each sample is sufficiently large (e.g., $N \geq 30$)	Knowing the shape is normal enables using a normal unit table and determining the probability of any of a study's possible sample means