

Main Topic: Research Concepts

Learning Objectives/Outcomes:

Topic 1: Validity & Reliability	Topic 2: Placebos	Topic 3: Blind & Double-Blind Trials	Topic 4: Randomization
<p>Ideas</p> <p>What is validity?</p> <ul style="list-style-type: none"> - Validity is how accurately a method measures what it intends to measure. <p>What is reliability?</p> <ul style="list-style-type: none"> - Reliability is how consistent a method of measurement is. <p>How do we determine if a method is reliable?</p> <ul style="list-style-type: none"> - It will yield the same or very similar results every time it is used. <p>Why is this target a representation of good reliability but poor validity?</p>  <ul style="list-style-type: none"> - It shows good reliability because the marks are grouped tightly around the same place. Its validity is poor because the marks were intended to hit the middle of the target, but they did not. 	<p>Ideas</p> <p>What is a placebo?</p> <ul style="list-style-type: none"> - A placebo is a product that looks like a new drug but lacks the active ingredient. It has no effect. <p>Do people know if they are getting a placebo?</p> <ul style="list-style-type: none"> - No, they do not. <p>What is the placebo effect?</p> <ul style="list-style-type: none"> - The placebo effect occurs when patients who have been taking a placebo drug report that it has helped them to feel better. <p>Is the placebo effect a result of physical or psychological changes in patients' health?</p> <ul style="list-style-type: none"> - The placebo has no physical effect on patients' health, so the improvement is merely psychological. 	<p>Ideas</p> <p>What is a blind trial?</p> <ul style="list-style-type: none"> - A blind trial is when patients don't know whether they are getting a real treatment or a placebo. <p>What is a double-blind trial?</p> <ul style="list-style-type: none"> - Neither the researchers nor the patients know who is getting a real treatment and who is getting a placebo. <p>What is the purpose of blind trials?</p> <ul style="list-style-type: none"> - Blind trials help researchers account for the placebo effect influencing how patients report the effectiveness of the treatment. 	<p>Ideas</p> <p>What is randomization?</p> <ul style="list-style-type: none"> - Randomization is the process by which patients are randomly assigned to groups in a clinical trial. <p>What groups might a patient be randomly assigned to?</p> <ul style="list-style-type: none"> - A patient might randomly end up in a group that receives the tested treatment, one that gets a standard, approved treatment, or one that receives a placebo. <p>Why is a randomized clinical trial ended as soon as one treatment is proven to be more effective?</p> <ul style="list-style-type: none"> - It is ended promptly so that patients who were receiving less beneficial treatment have an opportunity to get the most effective treatment.

		<p>Why are double-blind trials sometimes needed?</p> <ul style="list-style-type: none"> - Double-blind trials prevent bias from the researchers as well as the patients, since researchers may be influenced by a strong hope or belief that the treatment is effective. <p>What is bias?</p> <ul style="list-style-type: none"> - Bias is allowing one's opinions to influence judgment, causing one to support or oppose something in an unfair way. 	
<p>Key Vocabulary Validity: How well a method measures what it is intended to measure.</p> <p>Reliability: How consistent a method of measurement is.</p>	<p>Key Vocabulary Placebo: A product that looks like a drug but lacks any active ingredients.</p> <p>Placebo Effect: A self-reported improvement in a patient's health as a result of taking a placebo, although it has no medical effect on a patient's health. It is a psychological phenomenon.</p>	<p>Key Vocabulary Blind Trial: A clinical trial in which the patients do not know whether they are getting a real treatment or a placebo.</p> <p>Double-Blind Trial: A clinical trial in which neither the researchers nor the patients know who is getting a real treatment and who is getting a placebo.</p>	<p>Key Vocabulary Randomization: The process of randomly assigning patients to a group in clinical trials.</p>

		<p>Bias: Support or opposition of something in an unfair way caused by allowing one's opinions to shape one's judgment.</p>	
<p>Pictures</p> <p>Target B Poor Validity Poor Reliability</p>  <p>Target A Poor Validity, Good Reliability</p>  <p>Target C Good Validity, Good Reliability</p> 	<p>Pictures</p> 	<p>Pictures</p> 	<p>Pictures</p> 