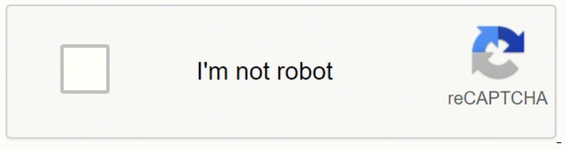

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What is the feldman method

Photo Courtesy: BraunS/E+/Getty Images If you've ever had a great idea for something new, then you know some testing is necessary to work out the kinks and make sure you get the desired result. When it comes to developing and testing hypotheses in the scientific world, researchers use an eight-step process known as the scientific method to prove or disprove ideas that could ultimately lead to more concrete scientific theories. Aristotle was the first known person to suggest using observation and experimentation to prove various hypotheses proposed by scientists, philosophers and mathematicians. Over time, his initial ideas were tweaked and improved until they evolved into what we know today as the scientific method. Before you tackle your next science experiment, let's take a look at the steps you need to include to validate your findings.Observation (Steps One Through Four)The steps that make up the scientific method generally fall into three phases: observation, experimentation and conclusion. The first four steps in scientific research all fall into the observation phase and include initial observations, asking questions, gathering information and forming hypotheses. The concept is simple: Before you can conduct any experiments, you must first observe something in nature that raises questions and prompts you to consider new ideas or solutions to a problem. In many cases, step one takes place without any conscious effort on the part of the observer. Photo Courtesy: Anchalee Phanmaha/Moment/Getty Images After observing something that catches your eye, you may decide you want to know more about it, which requires you to ask a question. Example questions could relate to why something happens or what makes it occur. Asking a relevant question is the second step in the scientific method. Next, you want to do some research to find the answer to the question. For instance, if you are wondering why plants respond to sunlight, you would want to thoroughly research the topic of photosynthesis and perform your own experiments to increase your understanding. The research you conduct is the backbone of step three. In some cases, you may discover evidence already exists to answer the question without any further effort on your part, but your own research could lead you in a new direction and expand on what you already know. Once you have made an observation, asked a relevant question and carried out your own research, you can complete step four by developing a hypothesis based on everything you learned. Think of a hypothesis as an educated guess. It's based on what seems to be true based on preliminary evidence, but it hasn't been conclusively proven to be true.More About a HypothesisThe hypothesis is one of the cornerstones of the entire scientific method. It doesn't offer proof when first presented, but it does require researchers to analyze the limited evidence available and use sound logic and reasoning to draw potential conclusions. The actual statements are typically written in an if/then format, with scientists predicting the outcomes of future experiments or the causes of particular events. They usually make these predictions based on the results of their own initial research. Photo Courtesy: Prasngkh Ta Kha/EyeEm/Getty Images Despite a common misconception, a hypothesis is not the same thing as a theory. If a hypothesis is tested, and the outcome is favorable — in other words, the scientist's initial educated guess was proven correct — then it could eventually become a much more concrete theory. Typically, a hypothesis is tested several times and by different scientists before it can be classified as a theory. It's also common for scientists to combine several different hypotheses to develop a single working theory. Experimentation (Step Five)Once the observation phase is complete, things typically get a little more hands-on in the experimentation phase. As the name would imply, this phase involves conducting tests designed to (hopefully) prove a hypothesis. At this point, scientists and researchers gather their research, their hypotheses and maybe even their imaginations and use it all to conduct experiments. Photo Courtesy: Catherine Falls Commercial/Moment/Getty Images The types of experiments conducted could take many different forms. Some include simple observation of a subject, such as a human or an animal, in their natural surroundings, while others are completely conducted in laboratories. In most cases, researchers will conduct the same experiments several times using different variables to try to prove their ideas are valid.Conclusion (Steps Six Through Eight)Once all the official data has been collected and recorded, it's time to initiate the conclusion phase by first analyzing all the information and then forming a conclusion in step six. If the analysis indicates the results are inconclusive, researchers may choose to repeat certain experiments or conduct new ones. Photo Courtesy: skynesher/E+/Getty Images If the results indicate a definite conclusion, then that conclusion is reported in step seven to the scientific community and possibly the public. Depending on the type of experiment and the results, researchers may even publish the results and the information in a peer-reviewed medical journal to ensure other researchers in the field are aware of the information. Finally, the results of associated experiments and the conclusion drawn will continue to be evaluated (step eight) for potential modifications as new experiments are conducted and new evidence emerges over time. This phase only stops if the conclusion is proven to be a scientific law (doesn't change over time), such as Newton's laws of motion. MORE FROM REFERENCE.COM Edmund Feldman, Professor of Art at the University of Georgia, created a very useful simple four-step method for looking at a work of art. It can be used with any art work as well as with music and dance. DESCRIPTION What can be seen in the artwork? ANALYSIS What relationships exist with what is seen? INTERPRETATION What is the content or meaning, based on steps 1 and 2? JUDGEMENT What is your evaluation of the work, based on steps1, 2, 3? Feldman was concerned that the critic (even if a student) should be actively engaged with the artwork. In the first step the critic is objectively stating what they can see in the work. Lines, shapes, colors, shading ... Considering the relationship between various elements used such as sizes, shapes, colors, textures, space and volumes, etc., encourages a complete examination of the artwork. It often reveals the decision making process of the artist, who wants the viewer to make certain connections within the artwork. Interpretation is the meaning of the work based on the information in steps 1 and 2. Interpretation is about ideas (not description) or sensation or feelings. Don't be afraid of revising your interpretation when new facts are discovered (such as the date of the artwork, or the personal history of the artist, etc.) Conversely, don't be reluctant to make an interpretation from your analysis of only the visual information. Judgment, the final step, is often the first statement that is expressed about an artwork before it has really been examined. Judgment in that case is neither informed nor critical but simply an opinion. We are working towards informed critical judgments, not just opinions. As artists and as art critics we want to be thoughtful in our approach to works of art. 1. DESCRIPTION What can be seen in the artwork? (Elements of Art) 2. ANALYSIS What relationships exist with what is seen? (Principles of Composition) 3. INTERPRETATION What is the intent, meaning, feeling or mood based on the elements and principles? 4. JUDGEMENT What is your opinion of the work, based on your analysis and interpretation. EXAMPLE RESPONSE: Description: I see stark contrast divided into geometric shapes. There is a large grey triangle and a large almost black triangle and same with a slim grey rectangle, slimmer black rectangle as well as a sliver of white rectangle. The subject is in the bottom left corner and stands out with black values. Everything is arranged in a simple format and composition.Analysis: All the triangles and rectangles all converge on the main subject who also stands out from the background because of the value contrast (Contrast). Everything from the shapes, angles and values seem to frame the woman (frame within a frame, leading line). The main subject is in the bottom left corner which utilizes the principle rule of thirds.Interpretation: This seems to be a very abstract photograph. All there is to it is simple shapes and lines. What makes it stand out is the woman therefore creating a focal point and a sense of intrigue. Who is this woman and more importantly, where is she? It almost seems as if she is in a painting because there is literally almost no details except the texture and value contrasts.Judgement: When I saw this image, I was struck with the simplicity of the photograph. It's just a bunch of shapes converging on a woman. But it's much more than that. It has an elegance to it, I love the heavy contrast that kind of just jumps out at you and the framing of those elements just makes it perfect. Fan Ho In your sketchbook, respond to these images using the Feldman's Method. The more detailed and specific your response, the better off you will be. See my example response above!! (30 pts) Elliott Erwitt Vivian Maier Brassai William Klein Robert Capa Fan Ho