

Statistics Project—Color Blindness Frequency

Color blindness is much more common than most people realize. Do a study that estimates the frequency of colorblindness. The links at the bottom of this page will lead you to a set of color blindness tests. Choose which ever one you think is best. If you use a sample of at least 100 in the Caucasian male category then your study should have some interesting results.

Most of the tests below also distinguish type of colorblindness. Be sure to record the following in your study: Did the subject suspect that he/she was color blind before the test? Is this their first color blindness test? Do they have any immediate relatives (mother, father, or siblings) that are known to be color blind? If the subject is diagnosed with color blindness, what type was it? Project the frequency of color blindness in each of the strata that you studied. Should you include sibling pairs in your study?

All of the male statistics teachers at Southwestern College will read your report. From the results of your study estimate the probability that at least one of them will be color blind.

Testing Cautions: If you use copies of any of the color blindness tests be sure that the copy colors are faithful to the original. Include details of the test you used. Color blindness is most likely a genetic condition so you will need to do a stratified sampling technique. At a minimum use separate strata for male/female. If possible use separate strata for Caucasian/Asian/African.

Report Writing Cautions: Be sure you thoroughly describe the experiment/study to the reader. Remember you are writing this report for the general reader not specifically for your teacher. Try to address any objections that the reader might bring up. Your report should be in a prose format. Be sure to use complete sentences, proper grammar, correct spelling, understandable statements, etc. Clarity of your concepts and presentation is important. If your English composition skills are not so good then make sure that someone in your group with good composition skills goes through your document carefully. If you have extensive tables and graphs consider putting them in an appendix.

<http://www.funstufftosee.com/colorblind2.swf>

http://www.visionchannel.net/HealthProfiler/healthpro_cb.shtml

http://www.biyee.net/v/color_vision_test/