Emily Thompson

Dr. Hansen

BIO247 Lab

09/05/22

Lab 1 Robustness and Reproducibility

1. I believe that this study is robust because it could be conducted again if the conditions were changed. For example, the area in which the study was conducted or what exposure was being monitored could be changed and the method of investigation would still be viable to use. This study is not reproducible though, because the protocol is not clearly defined nor are the parameters of the experiment expressed (i.e; if diets of the participants were altered in any way, etc.).
2. This study is not both robust and reproducible because the code is not published so it can't be reproduced; however, the input and output are analyzed which may make it somewhat robust as that is a key point in robustness, as well as the fact that they use publicly available databases as input.
3. This study is robust and reproducible because it gives a clear method that has been used to conduct the study which makes it reproducible. It is robust because the conditions could be altered (such as where the study is conducted) and the same method could be applied to produce data.
4. This study is both robust and reproducible because the code is documented and there are multiple input / output that show how the tool functions properly which makes it understandable for humans and readable for computers.

5. This study is neither robust nor reproducible because there seems to be no clear method that is easily understandable or followable. There are no guidelines and the fundamentals of this seem to lack a transferable quality in which it could be used under other conditions. There's no explanation of the tools used to find this information for the results either.