SCI199Y: Essay proposal: example 3

The essay topic I have selected is the link between childhood leukemia and alcohol consumption of the mother during pregnancy that was reported in the Minnesota Star Tribune on Jan.3, 1996, and included in `Chance News 5.01` on the World Wide Web.

The full text of the article is available online, and reports that researchers found that drinking is associated with a 10-fold increase in the risk of developing acute myeloid leukemia and a 2.3-fold increase in the risk of developing acute lymphoid leukemia.

The study was published in the January 2nd issue of the Journal of the National Cancer Institute, and I plan to base my essay on that article. Since I don't know what relative risk is, or how the analysis was carried out, I will need to refer to some articles or textbooks on statistical methods in medicine, which I can hopefully find in the references to the *JNCI* article. I will also need to find some basic medical text to find out what acute myeloid leukemia and acute lymphoid leukemia are, and whether there are any other known risk factors for these diseases. I will look for most of the information on the world wide web. I will use `http://www.yahoo.com/Health/index.html` as a starting point for finding health-related articles, and `http://www.enews.com/health.html` which lists several electronic journals on health, including one called "Cancer causes and control".

A tentative outline is the following:

1. Introduction: summary of the newspaper article
2. Summary of the article in the *Journal of the National Cancer Institute*: methods, data collection and conclusions.
3. Technical notes on childhood leukemia and its causes.
4. Technical notes on observational studies, relative risk, etc.
5. Potential difficulties/biases in the *JNCI* study.
6. (tentative): Other effects of pre-natal consumption of alcohol
7. Conclusions