**Exploring Statistical Methods**

**Correlation and Bivariate Regression**

**HK 396 Quantitative Research Methods**

The following questions are based on the methodology presented by Santo and Golding (2003).

1. Clearly state the purpose of the study.
2. Explain why answering the question posed in the purpose is important.
3. What type of sampling was used to acquire the participants (see Ch. 6)?
4. Specifically, what variables are measured and in what units?
5. What statistical methods are used in addressing the purpose?
6. What intermediate statistic did the author’s use in order to give their calculated correlation a probability of error? Click [here](http://davidmlane.com/hyperstat/A50760.html) if you are online. What statistic did I use in the Correlation PowerPoint lecture? Click [here](http://davidmlane.com/hyperstat/B134689.html) if you are online. Explain the different objectives of each intermediate statistical test.
7. What was the correlation between the 15 s HBC and VO2max for men only? How much variability in the VO2max scores of the men were not accounted for by HBC?
8. Overall, would you say that the 15-s HBC is better than the 1 min HBC for determining aerobic fitness? Explain.
9. List three other research studies, or types of questions, that could use this statistical technique. Be very clear and specific with your answer. For example, explicitly state the purpose of the study and the variables to be measured. Also include how the findings could be applied.