Cheng, R., & Lam, S. (2013). The interaction between social goals and self-construal on achievement motivation. *Contemporary Educational Psychology*, *38*(2), 136-148. doi:10.1016/j.cedpsych.2013.01.001

The motivational effects of mastery goals and performance goals have been widely documented in previous research on achievement motivation. However, recent studies have increasingly indicated a need to include social goals so as to gain a more comprehensive understanding of achievement motivation. The purpose of the present research was to examine how social goals predicted achievement motivation among students with different self-construals (independent versus interdependent). In Study 1, Chinese 8th graders completed a questionnaire on self-construal, social goals, and avoidance behaviors. In Study 2, the causal effect of self-construal and social goals on students’ willingness to take a course for improvement after failure was examined with experimental manipulation. The research sheds light on the theoretical framework of achievement motivation that goes beyond mastery and performance goals.

**Dataset includes:**

* Self-construal results categorized by independent and interdependent groups.
* Social goals – an average Likert scale variable ranging from 1-7, where higher scores indicate more social oriented goals.
* Avoidance – an average Likert scale variable ranging from 1-7, where higher scores indicate more avoidance.
* Improvement course – a variable denoting if participants were willing to retake a course they thought they had failed.

**On all of these questions, be sure to include a coherent label for the X and Y axes. You should change them to be “professional looking” (i.e. Proper Case, explain the variable listed, and could be printed in a journal).**

1. Which variables are the continuous variables?
2. Which variables are the categorical variables?
3. Create a histogram of one of your continuous variables using ggplot.
4. Create a simple boxplot of one of the continuous variables split by one of categorical variables.
   1. Are any of the data outliers or extreme scores?
5. Make a bar chart of another continuous and categorical variable combination (i.e. should not be the variables listed in number 4). Please note this bar chart **must** have error bars.
6. Make a bar chart of both your continuous measures at once (repeated measures). Please note this bar chart **must** have error bars.
7. Make a simple scatter plot of your two continuous measures measures with a linear line of best fit.