# **Assignments 7-10**

Assignment 7 (10 points)

Complete the progress report as described in Canvas.

*Just answer the questions and submit this part of the assignment by Thursday, April 2 by 11:59 pm to receive full credit for Assignment 7.*

Assignment 8 (20 points)

1. For the variable ACT, provide the mean and standard deviation for ALL participants.

Mean: 25.43

Sd: 5.143

1. For the variable GPA, provide the mean and standard deviation for sophomore women.

Mean: 2.8707

Sd: 0.48031

1. For the variable Stroop\_Incongruent, provide the mean and standard deviation for junior men that have low socioeconomic status.

Mean: 1470.39

Sd: 169.94

1. For the variable GPA, calculate the z-score for Subject #37. Hint, calculate the z-score by hand (there is a way to do this in SPSS, but it requires creating a new variable under the Transform tab; computing a new variable in SPSS would be beneficial if I required you to calculate z-scores for numerous participants).

Mean: 2.48585

Sd: 0.563

z-score= x-m/sd

=1.6-2.48/0.563

=-2.218

*Each question is worth 5 points and will be graded on accuracy.*

Assignment 9 (20 points)

Note, if the problem requires ANOVA, you need to report the results of your post hoc test in conjunction with the results of the ANOVA, but ONLY if the overall ANOVA is statistically significant. If you have to perform a two-way ANOVA, and the results of the interaction are significant, you need to probe that interaction (hint, you may need to split your file).

1. Determine if ACT scores significantly differ between men and women. Report your results in APA style.

The difference between ACT scores of men and women are not significant, t(198)= -0.087, p=0.931.

1. Determine if gender and/or SES affect GPAs. Report your results in APA style.
2. Determine if the ACT scores of the sample are significantly different compared to the population mean of 24. Report your results in APA style.

Mean: 25.43

1. Determine if reaction times during incongruent trials of the Stroop task are significantly different compared to reaction times during congruent trials. Report your results in APA style.

The reaction time for the congruent trials of the Stroop task are faster than the reaction times of the incongruent trials, t(199)=18.41, p < 0.05.

1. Determine if the percentage of correctly remembered words depends on the position in which the word is located (10 possible positions). Report your results in APA style.

*Each question is worth 4 points. Using the correct analysis is worth 2 points, and correctly reporting the results in APA style is worth 2 points.*

Assignment 10 (20 points)

1. Determine if one’s SES is correlated with whether they have a scholarship or not. Report your results in APA style.

There is not a significant correlation with one’s SES and whether or not they have a scholarship, t(198)= -0.001, p= 0.986.

1. Determine if there is a significant correlation between ACT scores and GPA. Report your results in APA style.

There is a significant correlation between ACT scores and GPA, t(198)= 0.636,

p < 0.05.

1. Determine if ACT scores, SES, and gender predict GPA. Report your results in APA style.

SES and gender both predict GPA. ACT does not predict GPA. R2=0.54, F(3, 196) = 76.699, p < 0.05. Not every variable was a significant predictor of GPA. Individuals GPA’s increased by 0.436 average points as they move from lower-class to middle-class and again increase by 0.436 average points when going from middle-class to high-class. Individuals GPA increased by .122 average points according to gender. Individuals GPA increase by 0.013 average points according to ACT but this is not a significant difference.

1. Determine if the number of women in the sample is significantly different from what we would observe on NKU’s campus. Women make up 62.75% of the NKU student population. Report your results in APA style.

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*Each question is worth 5 points. Using the correct analysis is worth 2 points, and correctly reporting the results in APA style is worth 3 points.*