

‘The effect of self-efficacy and academic behavioural confidence on procrastination during online postgraduate study’

Abstract:

The study aimed to understand whether university students’ self-efficacy and academic behaviour confidence could predict levels of academic procrastination during postgraduate study. Using a correlational design, 42 participants were recruited after being invited to take part in an online survey. Levels of procrastination, self-efficacy and academic behaviour confidence (ABC) were analysed using multiple regression. Sub-categories for ABC showed both positive and negative relationships, but only the first subcategory showed a significant result, confirming a null hypothesis. Self-efficacy also showed a significant positive relationship rejecting a partial null hypothesis. Future support for post-graduate students can be planned and organised into curriculum to work as a preventative for procrastination and work towards improving achievement data in post-graduate study.

Introduction:

Evidence shows that procrastination can have negative impacts upon academic studies and interventions have been trialled in order to provide interventions for students (Goroshit, 2018). However competing research suggests that procrastination can sometimes be seen in a positive light allowing students the time they need to think more carefully about their academic studies (Abramowski, 2018). Following the conduction of a meta-analysis, procrastination has been both positively and negatively linked to perfectionism and is also associated with motivational problems in academic achievement, with self-efficacy acting as a mediator between the two (Xie, Yang & Chen, 2018). Bradley, Browne, and Kelley (2017) conducted a study which found that self-efficacy and self-regulation are reliable predictors for students making positive achievements in online study in particular. Results were analysed and compared to previous test results making for a strong correlation between the two. Zang, Dong and Fang et al, (2018) also found that self-efficacy alongside self-regulation was a mediator for academic procrastination and self-esteem among undergraduate healthcare students. Examining bivariate

correlations, the study found positive correlations between procrastination and fear of failure, alongside a negative correlation between procrastination self-efficacy and self-esteem. Self-efficacy and self-esteem have been closely related to confidence (Bandura, 2006). Sander, De La Fuente Arias, Stevenson and Jones (2011) suggest that students confidence in academic behaviour can be measured using an ABC scale which is comprised of 17 items, with measures including; attendance, grades, studying, and verbalising. Kirikkanat and Kali Soyer (2015) did a study testing the same ABC scale for reliability and validity as a measure with Turkish students. They found that the scale was effective for finding information relating to adapting educational environments to meet student's needs. The literature shows that there is already an existing evidence base for this area of enquiry, but appears to still find procrastination a persistent problem in education achievement - For this reason 'procrastination' will be the dependant variable, with one independent variable being; levels of 'self-efficacy' and the second independent variable being; 'academic behaviour confidence'.

The aim of the piece of research was to identify whether procrastination can be predicted from scores of academic behaviour confidence and self-efficacy in students who are in postgraduate study.

Hypotheses:

1. Self-efficacy scores will have a significant impact on levels of academic procrastination for online postgraduate psychology students.
2. Academic behavioural confidence scores will have a significant impact on levels of academic procrastination for online postgraduate psychology students.

Method:

Design:

The correlation study aimed at examining the relationships between three variables. The aim was to identify whether scores for the independent variables, 'self-efficacy' and 'academic behaviour confidence', could predict levels of 'procrastination' being the dependent variable; in post-graduate study, using a multiple regression analysis.

Materials:

A survey was compiled using relevant elements from three existing questionnaires; Academic Behavioural Confidence Scale (ABC), Coping Self-Efficacy Scale (CSES), and the Procrastination Scale – Students (PASS) utilising Qualtrics software online to disseminate. The survey included questions related to demographic information which included; age, gender, ethnicity, current course of study, full/ part time study, and year of study. Name and email addresses were acquired from each participant in order to send a unique code post the survey's completion. Relevant questions were utilised for each section of the survey using Likert scaled responses. Questions were chosen to include in the survey which reflected the context of postgraduate study. For example:

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1. To what degree do you procrastinate on this task?

Never Almost Never Sometimes Nearly Always Always

a b c d e

All questions required a closed response for quantitative data analysis. The survey was constructed using Qualtrics software enabling simplistic dissemination to chosen target populations.

Procedure:

Prior to the distribution of the survey and data collection ethical approval was sought from the university's ethics board. Respondents were recruited voluntarily and consent was gained prior to participation in the survey. There were 42 respondents who were initially recruited for the study via University of Derby 'Blackboard' page and email invitation using a strategic sampling method. Due to issues with recruitment the sample was then extended to postgraduate students currently studying for any course attending any university location or online using opportunity sampling method. Screening questions ensured that participants were over the age of 18 and were absent from mental health diagnoses. After initial screening questions, 27 out of the 42 respondents completed the questionnaire with 22 females, 4 males and 1 other gender. Ages ranged between 21-51+ years, with most participants being in the 41-50 bracket. Participants' scores were calculated for each variable and mean figures for each variable were computed. There was missing data for 2 of the responses, therefore were excluded from analysis. 25 participants responded to all questions in the survey which were then used in the multiple regression analysis. Participants were informed of their right to withdraw and were also provided with debriefing at the end of the survey with contact details for their reference if required.

Results:

Descriptive Statistics

In Table 1 descriptive statistics show that N=25 participants had M=2.85, SD=0.69 scores for Procrastination, M=2.25, SD=0.58 for Self Efficacy, M=3.63, SD=0.67 for ABC 1, and M=7.25, SD=2.04 for ABC 2. Skewness of Procrastination scored at 0.82 and kurtosis scored at -.086, skewness of Self-Efficacy scored at 0.00 and kurtosis scored at -1.14, skewness for ABC 1 scored at -0.38 and kurtosis scored at -

0.55 and skewness for ABC 2 scored at -0.04 and kurtosis scored at -1.14. All fell within range +/- 1.96 showing assumptions of normality being met.

Table 1: Descriptive Statistics for All Variables

Variable	Mean (M)	Standard Deviation (SD)	95% Confidence Interval (CI) Lower	95% Confidence Interval (CI) Upper	Skewness	S-SE	Kurtosis	K-SE	N
Procrastination	2.8533	.68604	1.685	6.252	.815	.464	-.086	.902	25
Self-Efficacy	2.2492	.58088	-.108	.822	.003	.464	-1.141	.902	25
ABC 1	3.6333	.67358	-1.125	-.060	-.376	.464	-.553	.902	25
ABC 2	7.2477	2.03865	-.122	.187	-.043	.464	-1.145	.902	25

Non-parametric tests were required due to continuous interval for each of the variables and did not assume parameters of the distribution. Even though data was collected using a Likert scale for responses the data did not meet the assumptions of scale level data.

Z Scores were calculated for both skewness and kurtosis:

Z Scores - Skewness

- Procrastination (0.815 - 0.464) = 0.35
- Self-Efficacy (0.003 – 0.464) = -0.46
- ABC 1 (-0.376 – 0.464) = - 0.50
- ABC 2 (-.043 – 0.464) = 0.89

Z Scores - Kurtosis

- Procrastination (-0.086 – 0.902) = -0.98
- Self-Efficacy (1.141 – 0.902) = 0.24
- ABC 1 (-0.553 – 0.902) = -1.46
- ABC 2 (-0.145 – 0.902) = -1.05

Distribution:

Scatterplots were generated for each independent variable and show correlative value with the dependent variable procrastination. Examine the distribution of scores using a line of best fit, standard deviation is lowest in self-efficacy. The Fig.1, Fig.2 and Fig.3 display clear clustering around the line of best-fit in self-efficacy, whereas; ABC 1 and ABC 2 are more randomly clustered.

Fig.1 Scatter-plot: Distribution of Self-Efficacy scores

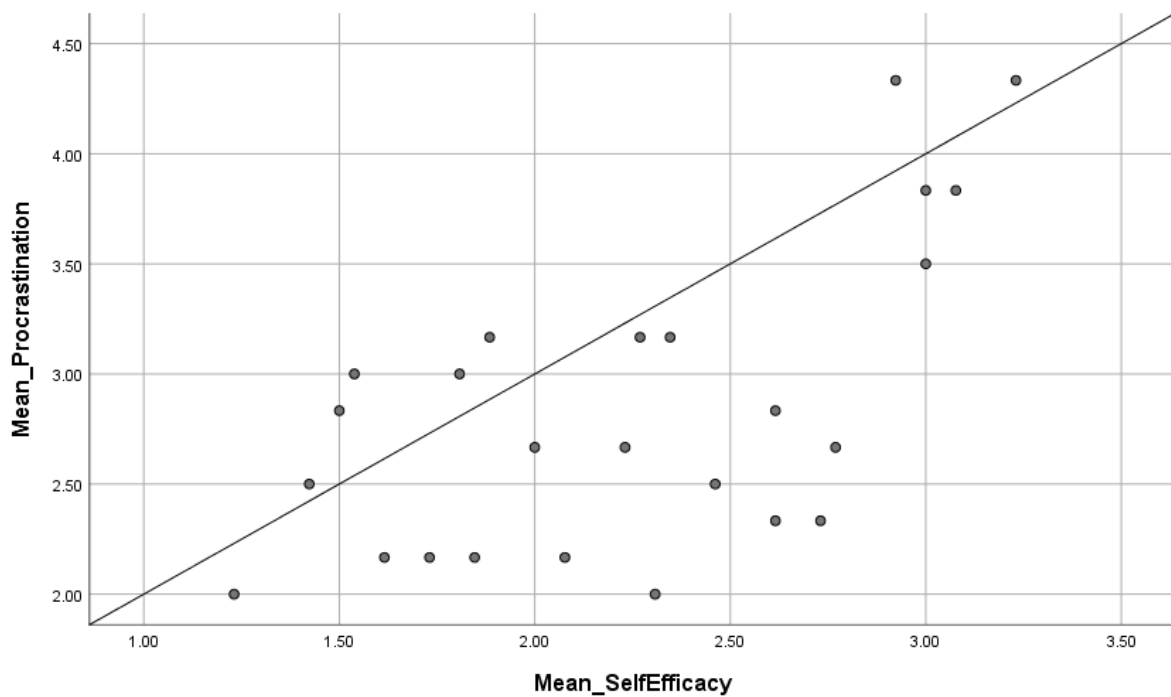


Fig.1 Scatter-plot: Distribution of ABC 1 scores

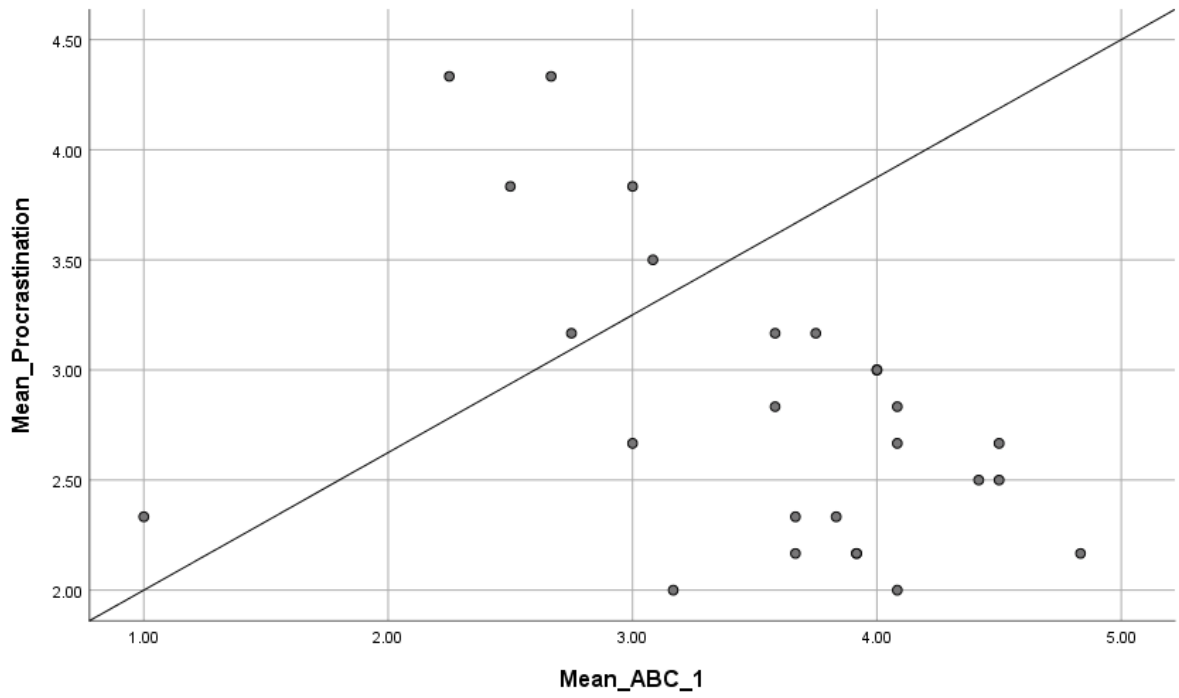
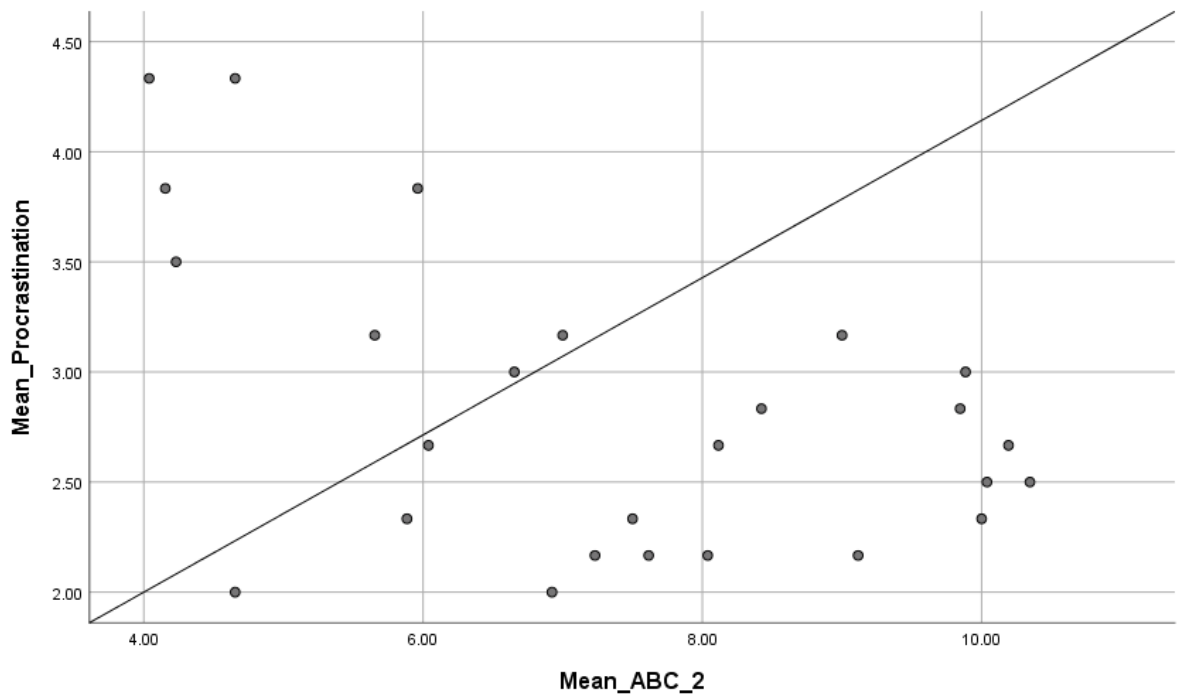


Fig.1 Scatter-plot: Distribution of ABC 2 scores



Inferential Tests

A correlational design was used to examine if self-efficacy, ABC 1 and ABC 2, can predict levels of postgraduate students' academic procrastination. Correlations between the variables are shown in Table 2.

Table 2: Correlations between Procrastination, Self Efficacy, ABC 1 and ABC 2

		Procrastination	Self-Efficacy	ABC 1	ABC 2
Pearson Correlation	Procrastination	1.000	.625	-.701	-.483
	Self Efficacy	.625	1.000	-.634	-.476
	ABC 1	-.701	-.634	1.000	.749
	ABC 2	-.483	-.476	.749	1.000
Sig. (1-tailed)	Procrastination	.	.000	.000	.007
	Self Efficacy	.000	.	.000	.008
	ABC 1	.000	.000	.	.000
	ABC 2	.007	.008	.000	.

Upon examining the correlations for homoscedasticity no issues were identified with all scores being below .80. Durbin-Watson scored 2.03 therefore suggesting adjacent residuals were negatively correlated, confirming any errors were random (Table 3).

Table 3: Change Statistics for Predictors Upon Procrastination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.742 ^a	.550	.486	.49197	.550	8.556	3	21	.001	2.027
a. Predictors: (Constant), ABC2, SelfEfficacy, ABC1 b. Dependent Variable: Procrastination										

ANOVA showed regression was significant with $p < 0.01$ at 0.001 (Table 4).

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.213	3	2.071	8.556	.001 ^b
	Residual	5.083	21	.242		
	Total	11.296	24			

Coefficients showed ABC 1 had a negative relationship with procrastination with $t = -2.31$ with significance at $p = 0.031$. Both Self Efficacy ($t = 1.60$, $p = 0.13$) and ABC 2 ($t = 0.44$, $p = 0.67$) was not significant but showed a positive relationship with procrastination (Table 5).

If self efficacy was to increase by 1 unit then procrastination would increase by 0.36. If ABC 2 was to increase by 1 unit then procrastination would increase by 0.32. However, ABC 1 showed no predictive capacity. Data were analysed using a Multiple Regression using the Enter Method. The regression equation produced a large effect size ($R^2 = 0.550$, $R^2_{Adj} = 0.486$, $f = 8.56$, $df = 3, 21$, $p < 0.001$), indicating that self-efficacy and ABC 2 was a significant predictor for levels of procrastination.

Table 5: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	3.969	1.098		3.614	.002	1.685	6.252					
	Mean_SelfEfficacy	.357	.224	.302	1.595	.126	-.108	.822	.625	.329	.233	.598	1.673
	Mean_ABC_1	-.593	.256	-.582	-2.316	.031	-1.125	-.060	-.701	-.451	-.339	.340	2.945
	Mean_ABC_2	.032	.074	.096	.437	.667	-.122	.187	-.483	.095	.064	.440	2.275

a. Dependent Variable: Mean_Procrastination

Discussion:

To summarise the results ABC 1 had a significantly negative relationship with procrastination while self-efficacy and ABC 2 showed non-significant positive relationship on procrastination. Results from the multiple regression analysis found that raised self efficacy and sub category ABC 2 could predict levels of procrastination in students studying at post-graduate level. However, these results would have benefitted from further clarity regarding the ABC sub categories (ABC 1 and ABC 2), if the two subcategories were merged together then a clearer outcome would be concluded upon.

In future research the target group could have been sampled more broadly from the onset in order to have an increased scope in generalisability to wider placed groups of postgraduate students.

There also could be improvements had the 5 point scale been used throughout all of the sections in the survey. With some scores being on an 11 point scale it was challenging to be able to standardise the scores in preparation for manipulation. From examining the previous research it is clear that there were some similar findings within this piece of research. For example found that self efficacy could be a predictor for procrastination and that there are negative correlations between

academic behaviour confidence and procrastination, showing that the lower the levels of academic behaviour confidence the higher the levels of procrastination.

In future research it would be beneficial and important to examine whether 'ethnicity', 'socioeconomic status' and 'age' also impact on the levels of procrastination.

Nevertheless these results can be worked with in order to facilitate support for students in postgraduate study who have low self-efficacy.

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Appendices:

Appendix 1 – Scales Used for Composition & Scoring Data

Procrastination Assessment Scale – Students (PASS)

The PASS has two components, but for this research was only scored for frequency based on chosen questions included in the survey:

Frequency of Procrastination

The way in which we scored the questionnaire was by first assigning a numerical value to the 5-point Likert Scale for each question such that a=1, b=2, c=3, d=4, and e=5.

Then summed the first two questions of each of the 6 procrastination areas (1+2+4+5+7+8+10+11+13+14+16+17) to get a total score. A higher score indicates more self-reported procrastination.

With guidance from:

Solomon, L. J., & Rothblum, E. D. (1984). Academic procrastination: Frequency and cognitive-behavioral correlates. *Journal of Counseling Psychology*, 31(4), 503-509

Coping Self-Efficacy Scale (CSES)

Scored with guidance from:

Chesney MA, Neilands TB, Chambers DB, Taylor JM, Folkman S (2006). A validity and reliability study of the coping self-efficacy scale. *British Journal of Health Psychology* 11(3): 421–37

Academic Behavioural Confidence scale (ABC)

Sander, P. & Sanders, L. (2009). Measuring Academic Behavioural Confidence: The ABC Scale Revisited. *Studies in Higher Education*, 34(1), 19-35

Appendix 2 – SPSS Outputs

Descriptive Statistics

	Mean	Std. Deviation	N
Mean_Procrastination	2.8533	.68604	25
Mean_SelfEfficacy	2.2492	.58088	25
Mean_ABC_1	3.6333	.67358	25
Mean_ABC_2	7.2477	2.03865	25

Correlations

		Mean_Procrastination	Mean_SelfEfficacy	Mean_ABC_1	Mean_ABC_2
Pearson Correlation	Mean_Procrastination	1.000	.625	-.701	-.483
	Mean_SelfEfficacy	.625	1.000	-.634	-.476
	Mean_ABC_1	-.701	-.634	1.000	.749
	Mean_ABC_2	-.483	-.476	.749	1.000
Sig. (1-tailed)	Mean_Procrastination	.	.000	.000	.007
	Mean_SelfEfficacy	.000	.	.000	.008
	Mean_ABC_1	.000	.000	.	.000
	Mean_ABC_2	.007	.008	.000	.
N	Mean_Procrastination	25	25	25	25
	Mean_SelfEfficacy	25	25	25	25
	Mean_ABC_1	25	25	25	25
	Mean_ABC_2	25	25	25	25

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Mean_ABC_2, Mean_SelfEfficacy, Mean_ABC_1 ^b	.	Enter

a. Dependent Variable: Mean_Procrastination

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.742 ^a	.550	.486	.49197

a. Predictors: (Constant), Mean_ABC_2, Mean_SelfEfficacy, Mean_ABC_1

b. Dependent Variable: Mean_Procrastination

Collinearity Diagnostics^a

Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions		
					Mean_SelfEfficacy	Mean_ABC_1	Mean_ABC_2
1	1	3.866	1.000	.00	.00	.00	.00
	2	.112	5.879	.00	.19	.01	.08
	3	.017	14.953	.09	.20	.17	.79
	4	.005	28.475	.91	.61	.82	.12

a. Dependent Variable: Mean_Procrastination

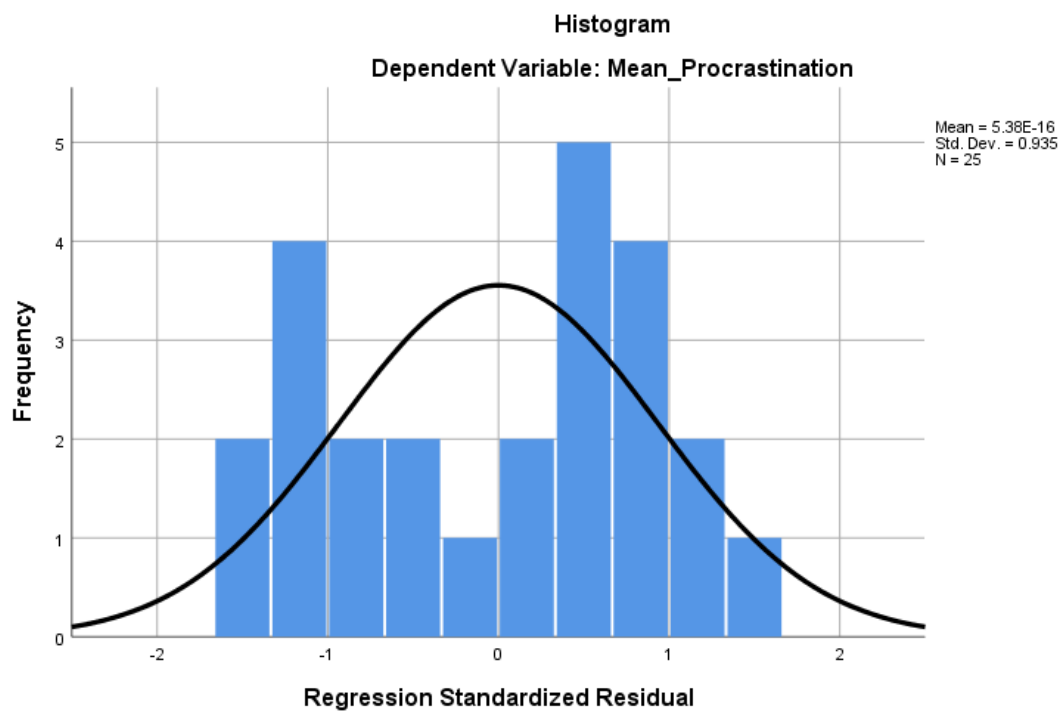
Casewise Diagnostics^a

Case Number	Std. Residual	Mean_Procrastination	Predicted Value	Residual	Status
1	-.392	3.17	3.3596	-.19290	
2	.640	2.50	2.1852	.31483	
3	-1.576	2.67	3.4422	-.77556	
4	-.444	2.83	3.0517	-.21837	
5	.423	2.67	2.4585	.20812	
6	.873	2.83	2.4039	.42945	
7	1.294	3.00	2.3633	.63668	
8	-1.032	2.17	2.6744	-.50771	
9	.833	3.83	3.4233	.41002	
10	.843	4.33	3.9188	.41449	
11	.886	3.00	2.5642	.43577	
12	-1.075	2.33	2.8623	-.52895	
13	-1.387	2.00	2.6824	-.68244	
14	-.954	2.17	2.6359	-.46927	

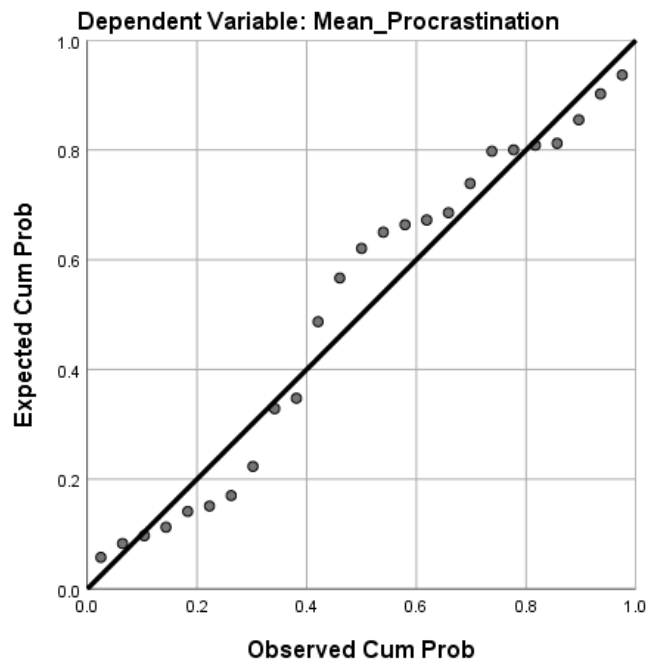
15	.483	2.67	2.4288	.23785	
16	1.058	3.17	2.6461	.52053	
17	M ^b
18	.	2.33	.	.	M ^b
19	-1.299	2.33	2.9723	-.63901	
20	-.761	2.17	2.5412	-.37449	
21	.307	3.50	3.3490	.15100	
22	-.033	2.50	2.5161	-.01611	
23	.168	3.83	3.7509	.08248	
24	.386	2.17	1.9769	.18978	
25	1.527	4.33	3.5822	.75113	
26	-1.213	2.00	2.5970	-.59699	
27	.447	3.17	2.9470	.21967	

a. Dependent Variable: Mean_Procrastination

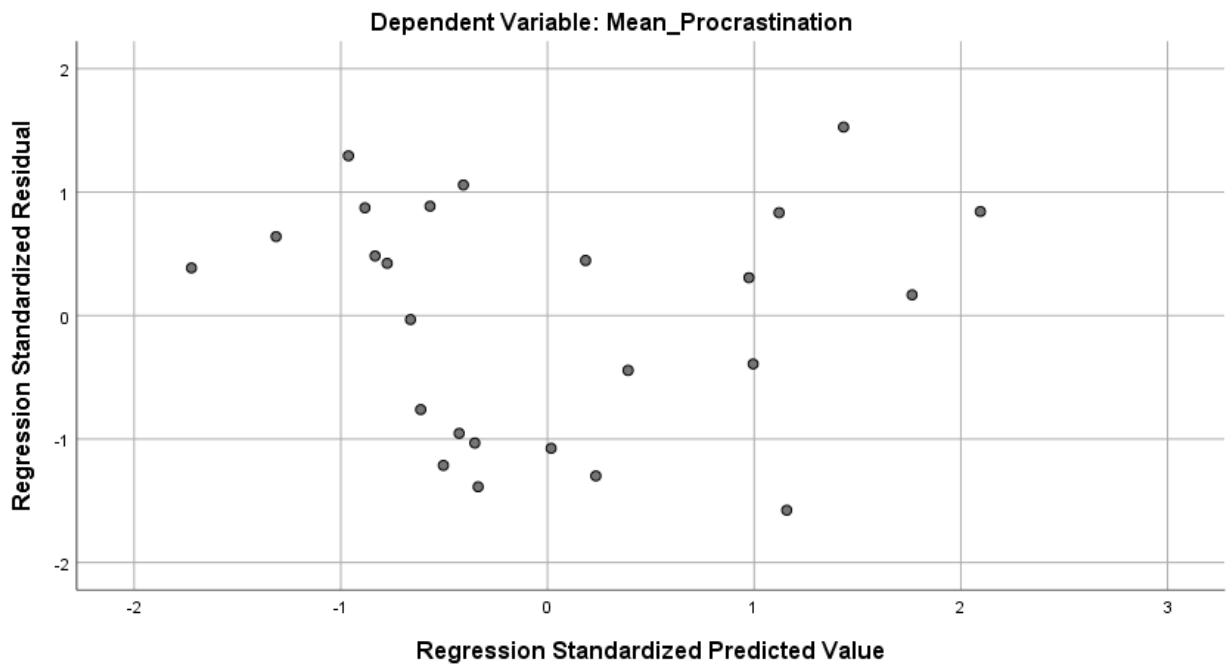
b. Missing Case

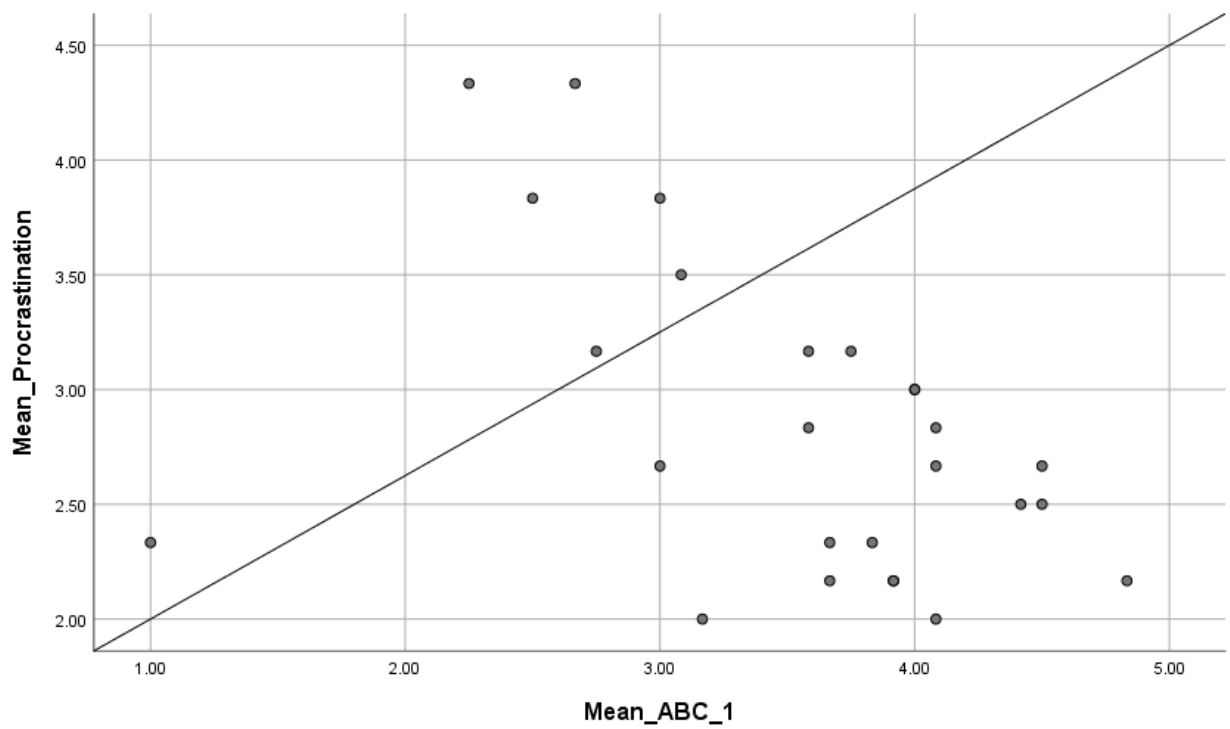
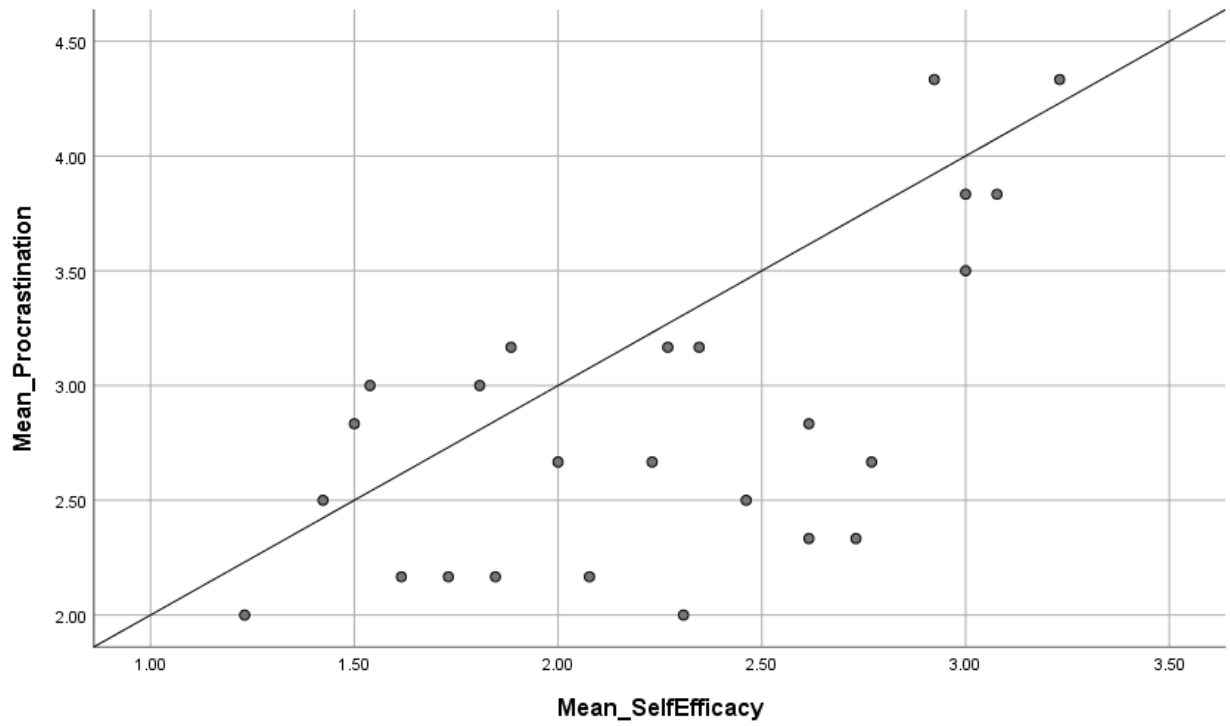


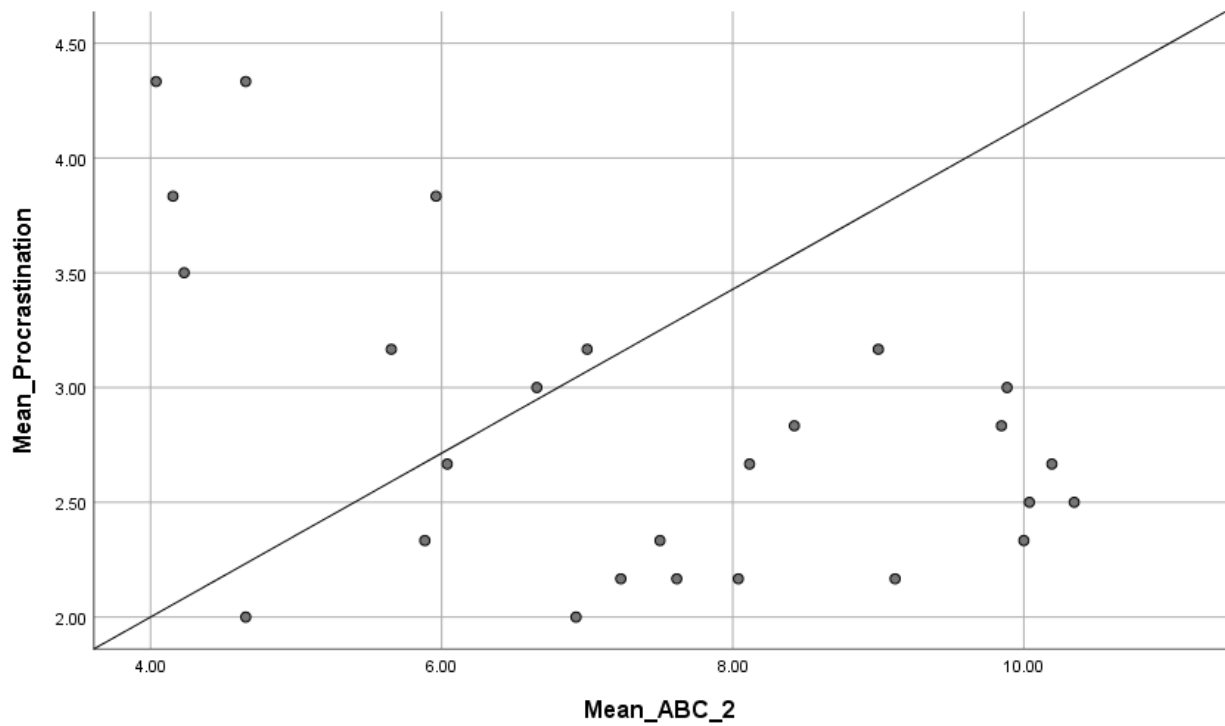
Normal P-P Plot of Regression Standardized Residual



Scatterplot







Case Processing Summary

	Valid		Cases Missing		Total	
	N	Percent	N	Percent	N	Percent
Mean_Procrastination	25	92.6%	2	7.4%	27	100.0%
Mean_SelfEfficacy	25	92.6%	2	7.4%	27	100.0%
Mean_ABC_1	25	92.6%	2	7.4%	27	100.0%
Mean_ABC_2	25	92.6%	2	7.4%	27	100.0%

Descriptives

		Statistic	Std. Error
Mean_Procrastination	Mean	2.8533	.13721
	95% Confidence Interval for Lower Bound		2.5702
	Mean Upper Bound		3.1365
	5% Trimmed Mean	2.8185	
	Median	2.6667	
	Variance	.471	
	Std. Deviation	.68604	
	Minimum	2.00	
	Maximum	4.33	
	Range	2.33	

	Interquartile Range	.92	
	Skewness	.815	.464
	Kurtosis	-.086	.902
Mean_SelfEfficacy	Mean	2.2492	.11618
	95% Confidence Interval for Lower Bound	2.0095	
	Mean Upper Bound	2.4890	
	5% Trimmed Mean	2.2509	
	Median	2.2692	
	Variance	.337	
	Std. Deviation	.58088	
	Minimum	1.23	
	Maximum	3.23	
	Range	2.00	
	Interquartile Range	.98	
	Skewness	.003	.464
	Kurtosis	-1.141	.902
Mean_ABC_1	Mean	3.6333	.13472
	95% Confidence Interval for Lower Bound	3.3553	
	Mean Upper Bound	3.9114	
	5% Trimmed Mean	3.6444	
	Median	3.7500	
	Variance	.454	
	Std. Deviation	.67358	
	Minimum	2.25	
	Maximum	4.83	
	Range	2.58	
	Interquartile Range	1.04	
	Skewness	-.376	.464
	Kurtosis	-.553	.902
Mean_ABC_2	Mean	7.2477	.40773
	95% Confidence Interval for Lower Bound	6.4062	
	Mean Upper Bound	8.0892	
	5% Trimmed Mean	7.2543	
	Median	7.2308	
	Variance	4.156	
	Std. Deviation	2.03865	
	Minimum	4.04	
	Maximum	10.35	
	Range	6.31	
	Interquartile Range	3.29	

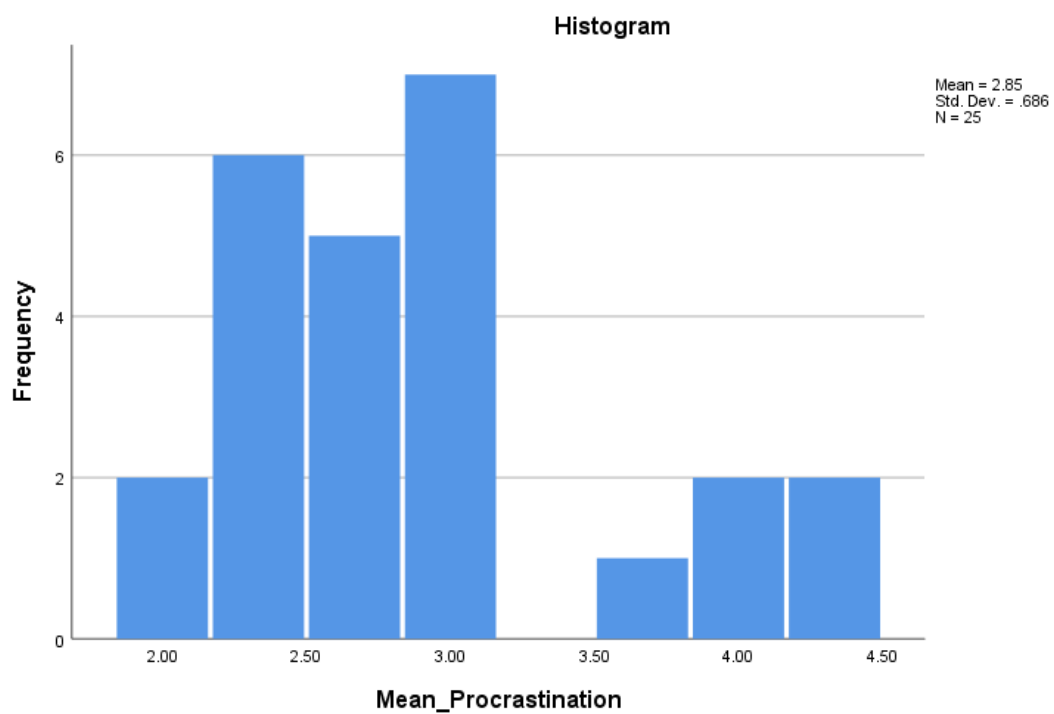
Skewness	-0.043	.464
Kurtosis	-1.145	.902

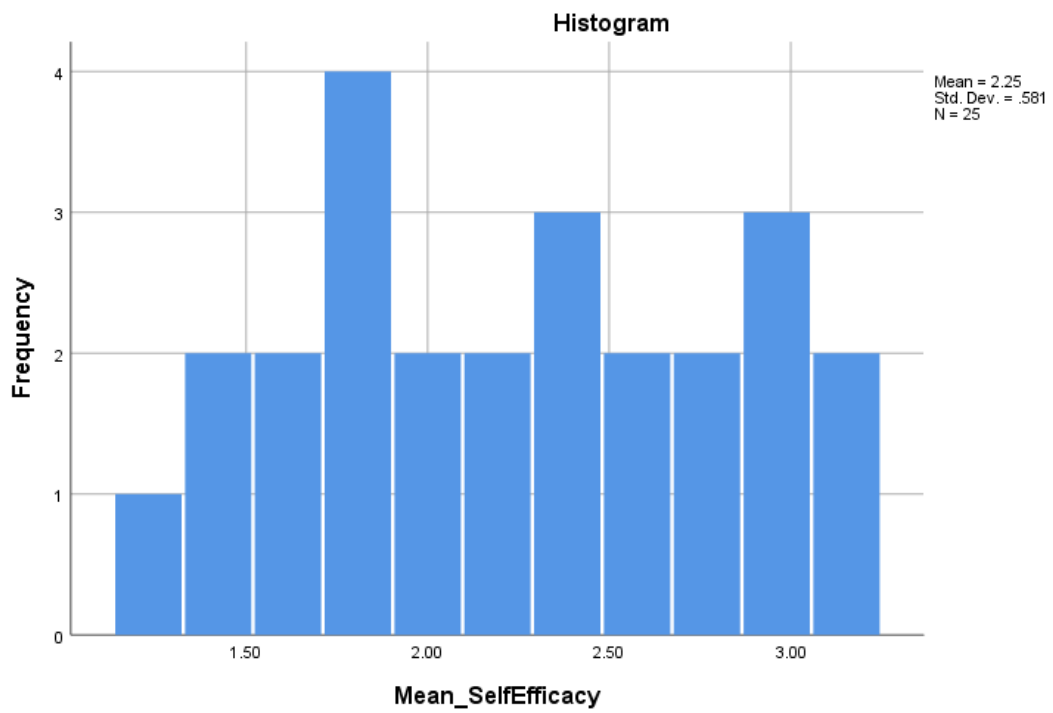
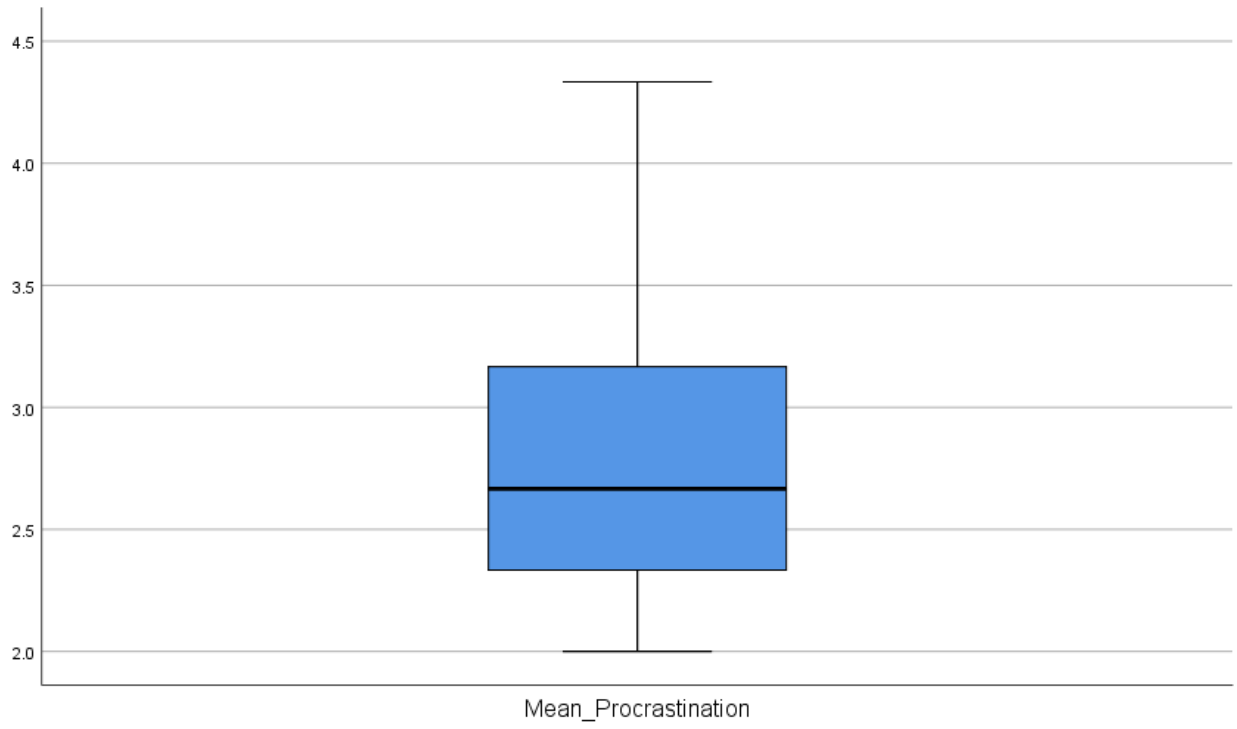
Extreme Values

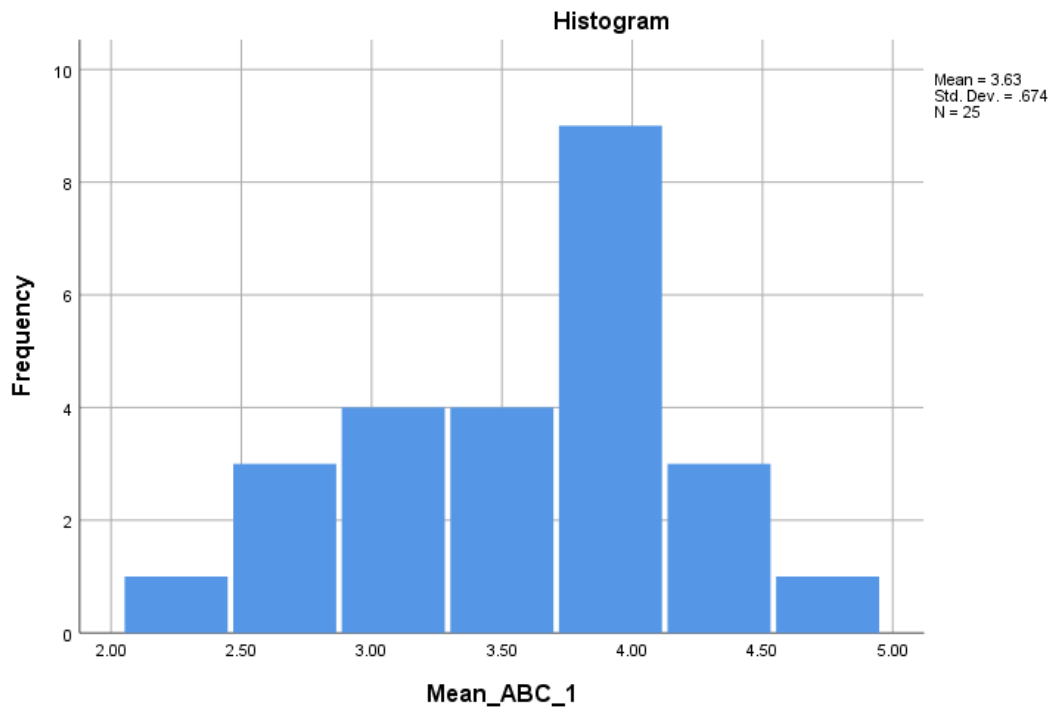
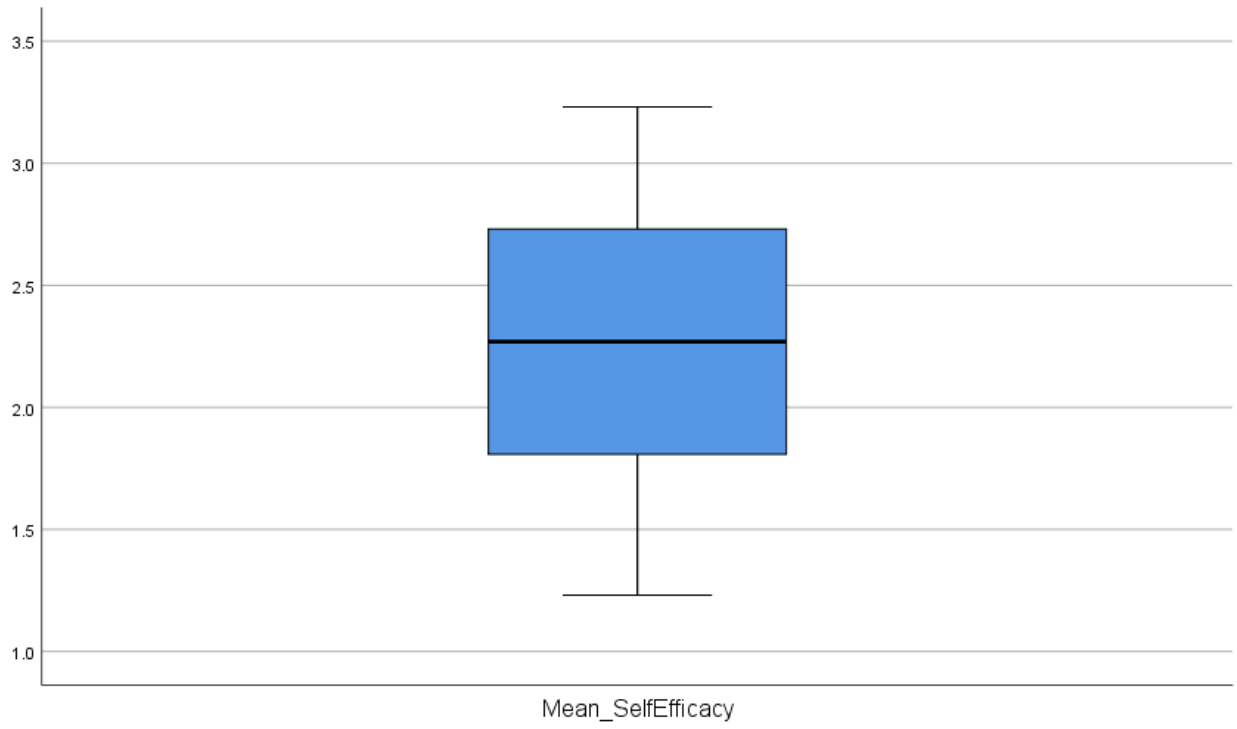
			Case Number	Value
Mean_Procrastination	Highest	1	10	4.33
		2	25	4.33
		3	9	3.83
		4	23	3.83
		5	21	3.50
	Lowest	1	26	2.00
		2	13	2.00
		3	24	2.17
		4	20	2.17
		5	14	2.17 ^a
Mean_SelfEfficacy	Highest	1	10	3.23
		2	9	3.08
		3	21	3.00
		4	23	3.00
		5	25	2.92
	Lowest	1	13	1.23
		2	2	1.42
		3	6	1.50
		4	7	1.54
		5	24	1.62
Mean_ABC_1	Highest	1	24	4.83
		2	15	4.50
		3	22	4.50
		4	2	4.42
		5	5	4.08 ^b
	Lowest	1	10	2.25
		2	23	2.50
		3	25	2.67
		4	1	2.75
		5	9	3.00 ^c
Mean_ABC_2	Highest	1	22	10.35
		2	15	10.19
		3	2	10.04
		4	11	9.88
		5	6	9.85

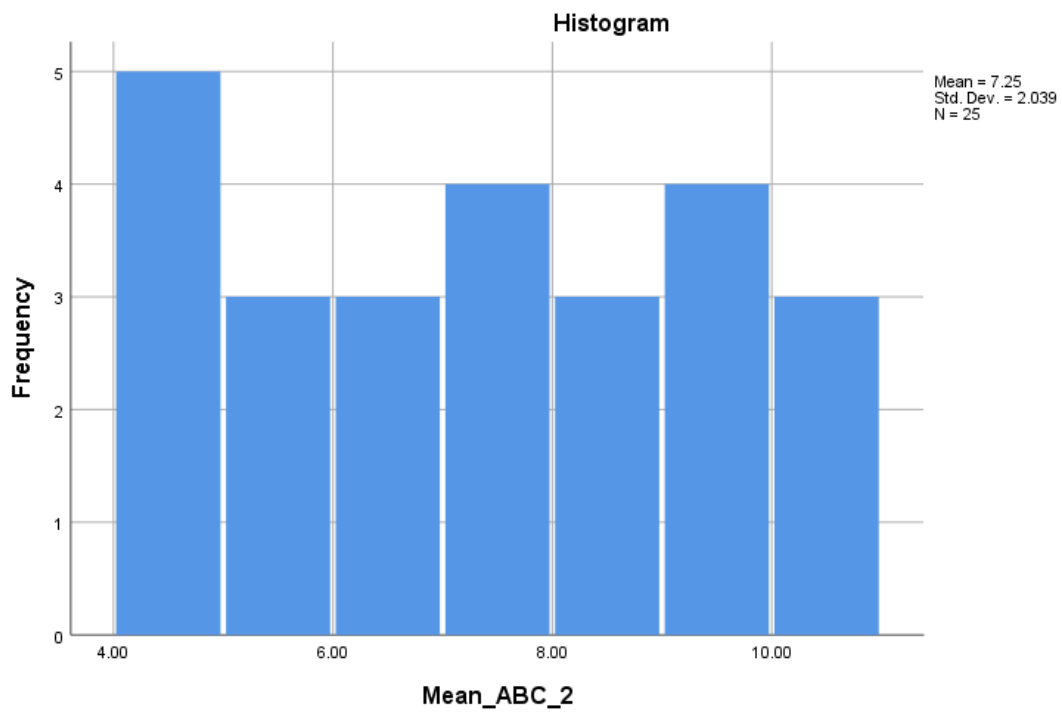
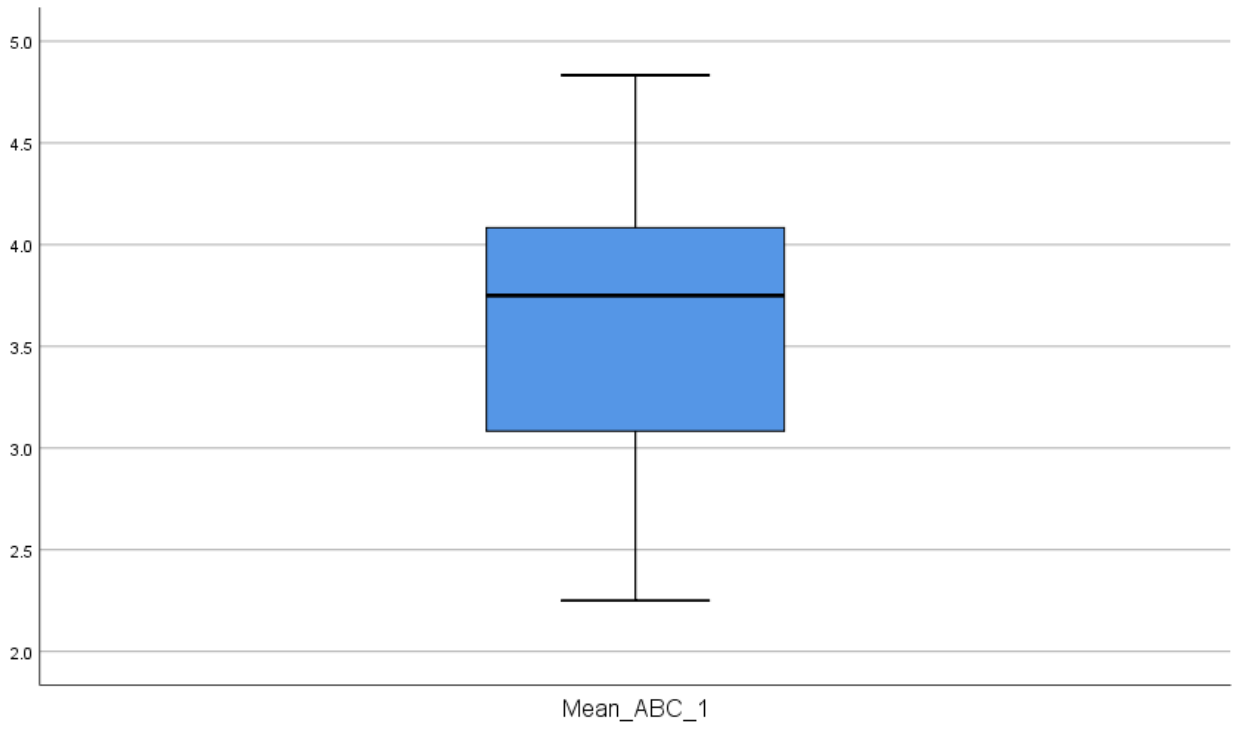
Lowest	1	10	4.04
	2	9	4.15
	3	21	4.23
	4	25	4.65
	5	13	4.65

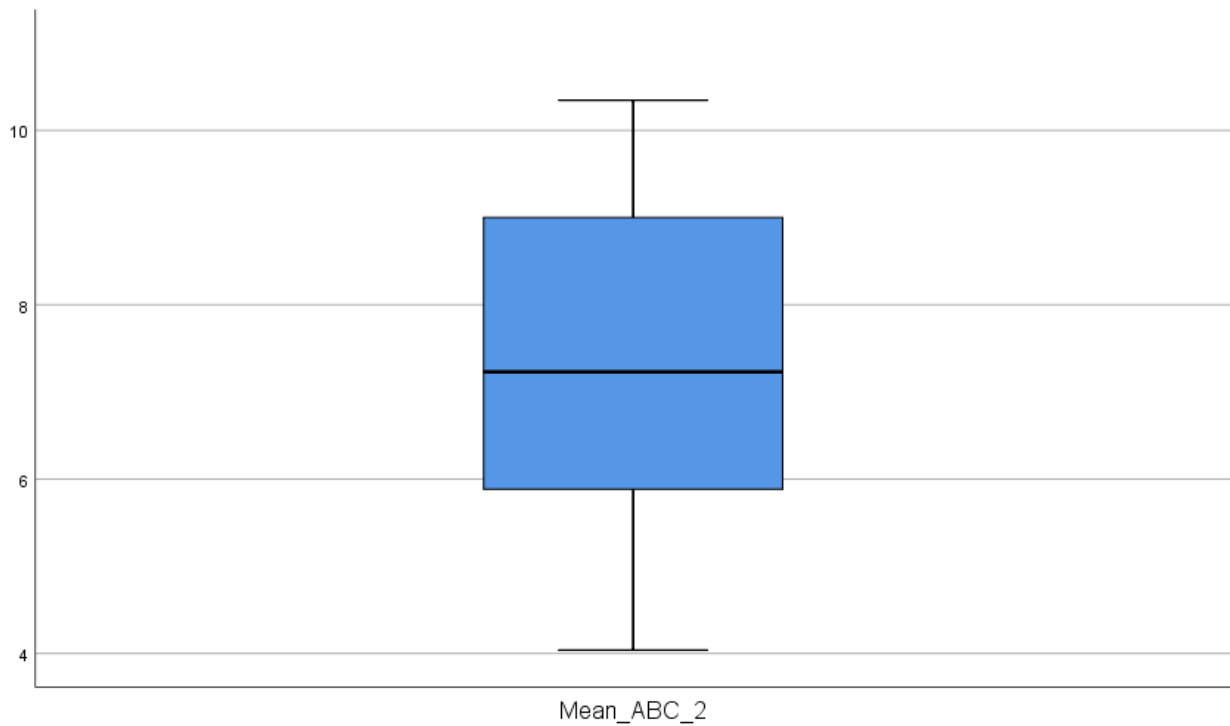
- Only a partial list of cases with the value 2.17 are shown in the table of lower extremes.
- Only a partial list of cases with the value 4.08 are shown in the table of upper extremes.
- Only a partial list of cases with the value 3.00 are shown in the table of lower extremes.











Descriptive Statistics

	Mean	Std. Deviation	N
Mean_Procrastination	2.8533	.68604	25
Mean_SelfEfficacy	2.2492	.58088	25
Mean_ABC_1	3.6333	.67358	25
Mean_ABC_2	7.2477	2.03865	25

Correlations

		Mean_Procrastination	Mean_SelfEfficacy	Mean_ABC_1	Mean_ABC_2
Pearson Correlation	Mean_Procrastination	1.000	.625	-.701	-.483
	Mean_SelfEfficacy	.625	1.000	-.634	-.476
	Mean_ABC_1	-.701	-.634	1.000	.749
	Mean_ABC_2	-.483	-.476	.749	1.000
Sig. (1-tailed)	Mean_Procrastination	.	.000	.000	.007
	Mean_SelfEfficacy	.000	.	.000	.008
	Mean_ABC_1	.000	.000	.	.000
	Mean_ABC_2	.007	.008	.000	.
N	Mean_Procrastination	25	25	25	25
	Mean_SelfEfficacy	25	25	25	25
	Mean_ABC_1	25	25	25	25

Mean_ABC_2	25	25	25	25
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Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Mean_ABC_2, Mean_SelfEfficacy, Mean_ABC_1 ^b	.	Enter

a. Dependent Variable: Mean_Procrastination

b. All requested variables entered.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	Change Statistics df1
1	.742 ^a	.550	.486	.49197	.550	8.556	3

a. Predictors: (Constant), Mean_ABC_2, Mean_SelfEfficacy, Mean_ABC_1

b. Dependent Variable: Mean_Procrastination

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.213	3	2.071	8.556	.001 ^b
	Residual	5.083	21	.242		
	Total	11.296	24			

a. Dependent Variable: Mean_Procrastination

b. Predictors: (Constant), Mean_ABC_2, Mean_SelfEfficacy, Mean_ABC_1

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.969	1.098		3.614	.002
	Mean_SelfEfficacy	.357	.224	.302	1.595	.126
	Mean_ABC_1	-.593	.256	-.582	-2.316	.031
	Mean_ABC_2	.032	.074	.096	.437	.667

a. Dependent Variable: Mean_Procrastination

Collinearity Diagnostics^a

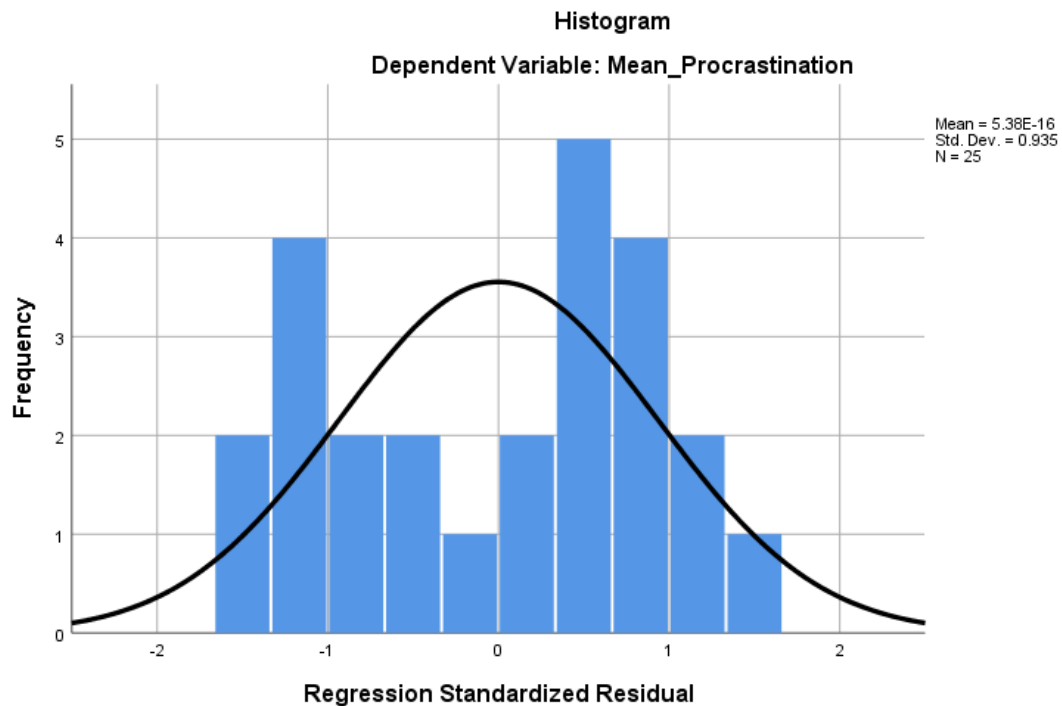
Model	Dimension	Eigenvalue	Condition Index	(Constant)	Variance Proportions		
					Mean_SelfEfficacy	Mean_ABC_1	Mean_ABC_2
1	1	3.866	1.000	.00	.00	.00	.00
	2	.112	5.879	.00	.19	.01	.08
	3	.017	14.953	.09	.20	.17	.79
	4	.005	28.475	.91	.61	.82	.12

a. Dependent Variable: Mean_Procrastination

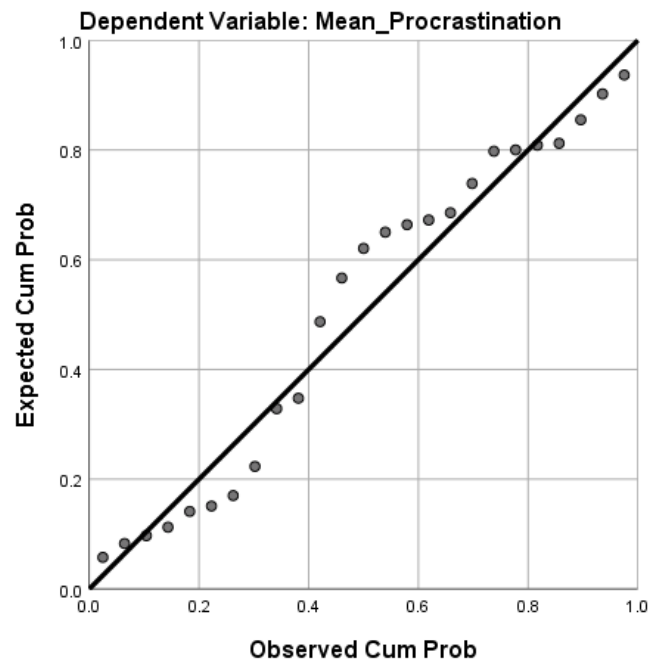
Residuals Statistics^a

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.9769	3.9188	2.8533	.50879	25
Residual	-.77556	.75113	.00000	.46020	25
Std. Predicted Value	-1.723	2.094	.000	1.000	25
Std. Residual	-1.576	1.527	.000	.935	25

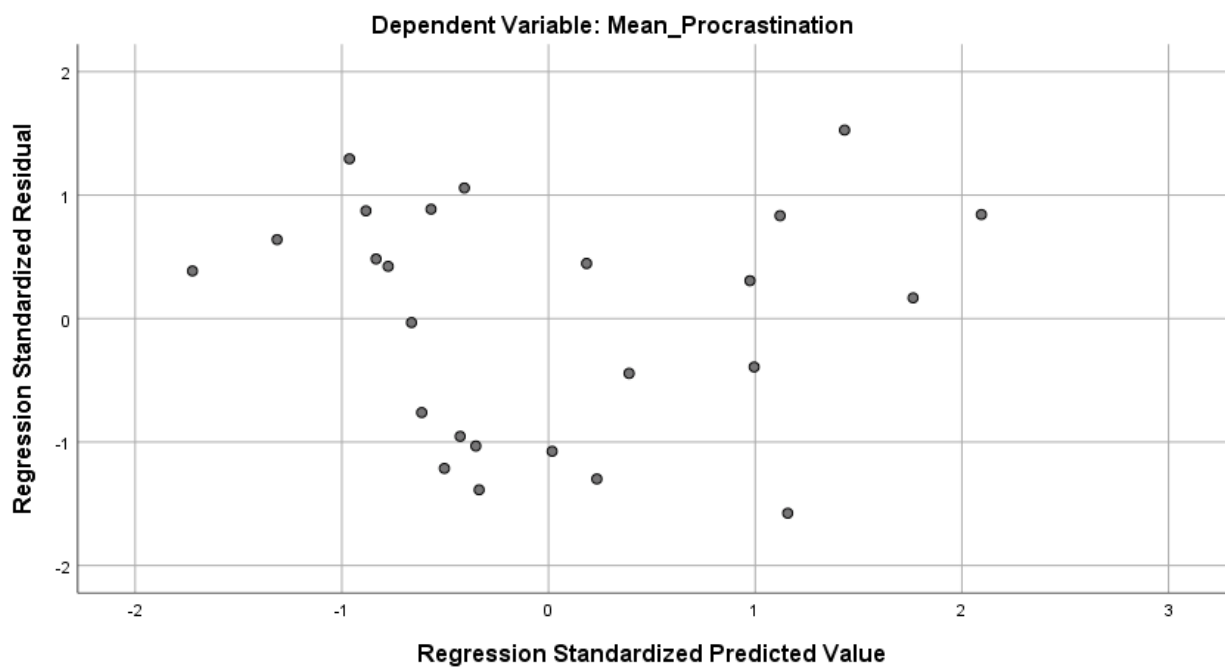
a. Dependent Variable: Mean_Procrastination



Normal P-P Plot of Regression Standardized Residual



Scatterplot



Statistics

		How old are you?	What is your gender?	What is your ethnicity?	What course are you currently studying at the University of Derby?
N	Valid	27	27	27	27
	Missing	0	0	0	0
Mean		2.48	1.89	4.33	
Std. Error of Mean		.188	.082	1.158	
Median		3.00	2.00	1.00	
Std. Deviation		.975	.424	6.019	
Skewness		-.078	-.769	1.680	
Std. Error of Skewness		.448	.448	.448	
Kurtosis		-.891	2.674	1.207	
Std. Error of Kurtosis		.872	.872	.872	
Range		3	2	17	