```
EXAMINE VARIABLES=PRE POST
  /PLOT BOXPLOT STEMLEAF NPPLOT
  /COMPARE GROUPS
  /STATISTICS DESCRIPTIVES
  /CINTERVAL 95
  /MISSING LISTWISE
  /NOTOTAL.
```

Explore

Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Pretest	23	100.0%	0	0.0%	23	100.0%
Posttest	23	100.0%	0	0.0%	23	100.0%

Descriptives

			Statistic	Std. Error
Pretest	Mean		68.4783	2.17229
	95% Confidence Interval for Mean	Lower Bound	63.9732	
		Upper Bound	72.9833	
	5% Trimmed Mean		68.7053	
	Median		68.0000	
	Variance		108.534	
	Std. Deviation		10.41795	
	Minimum		50.00	
	Maximum		83.00	
	Range		33.00	
	Interquartile Range		18.00	
	Skewness		-.374	.481
	Kurtosis		-.814	.935
Posttest	Mean		82.3478	2.37960
	95% Confidence Interval for Mean	Lower Bound	77.4128	
		Upper Bound	87.2828	
	5% Trimmed Mean		82.8768	
	Median		84.0000	
	Variance		130.237	
	Std. Deviation		11.41215	

Descriptives

		Statistic	Std. Error
	Minimum	58.00	
	Maximum	96.00	
	Range	38.00	
	Interquartile Range	20.00	
	Skewness	-.445	.481
	Kurtosis	-.864	.935

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Pretest	.126	23	.200*	.930	23	.107
Posttest	.168	23	.091	.924	23	.080

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

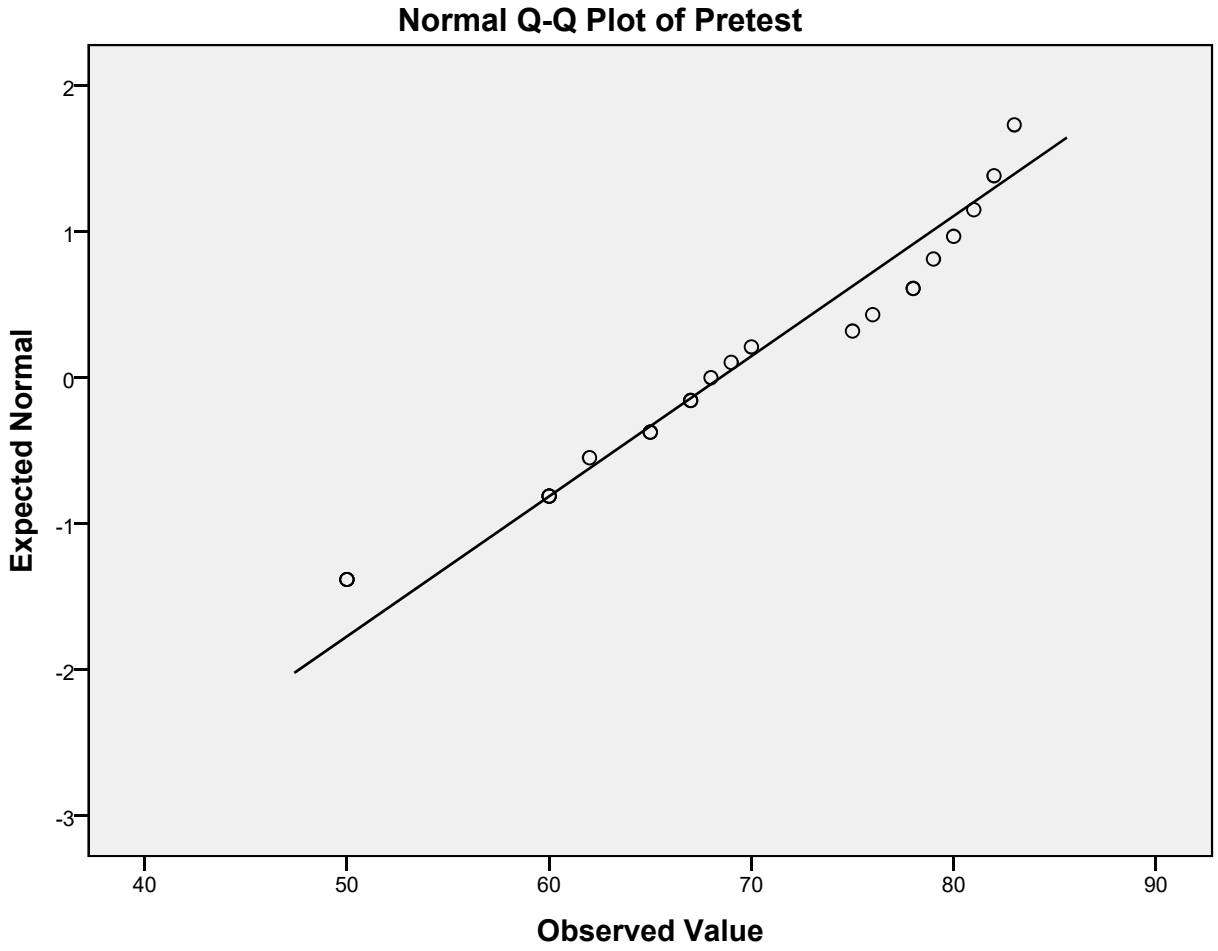
Pretest

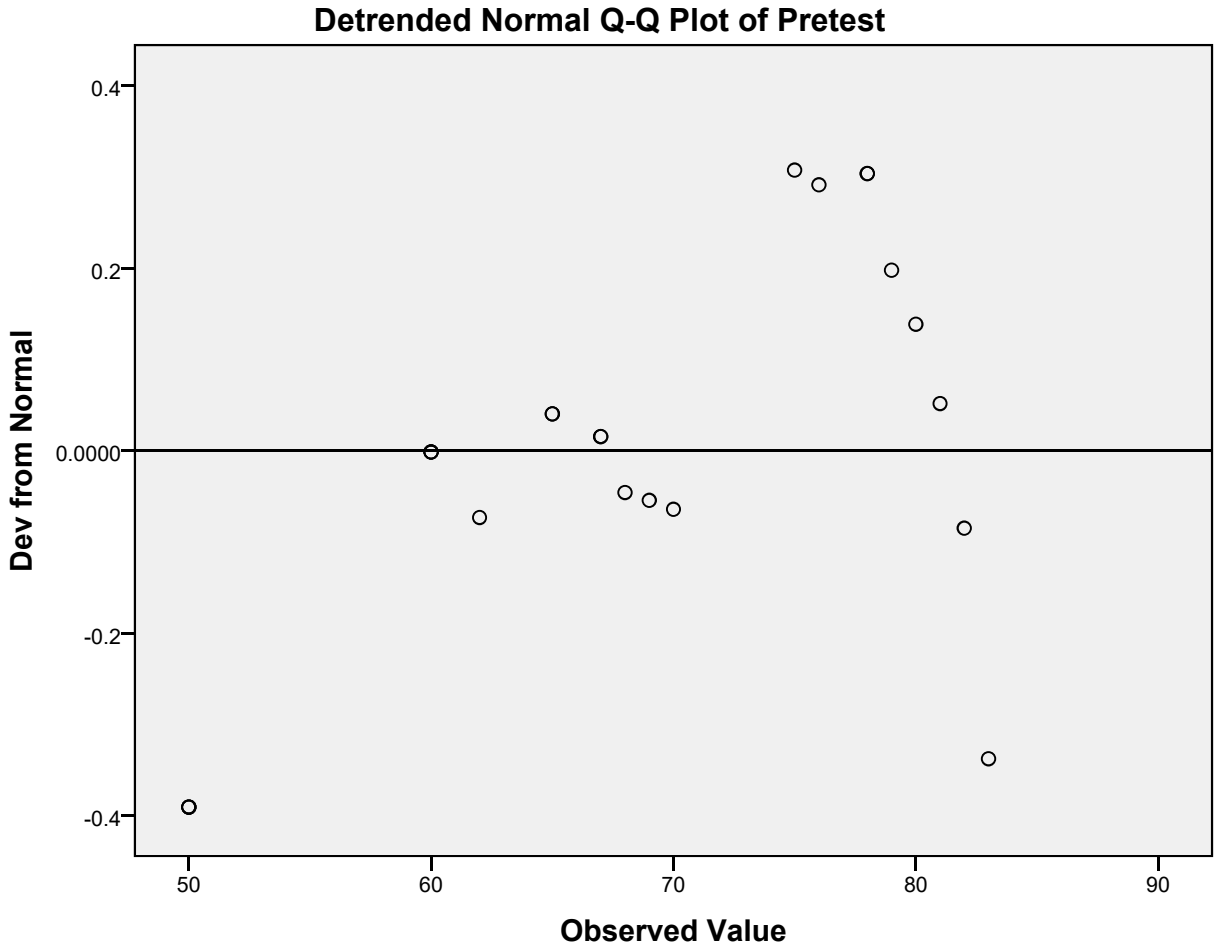
```
Pretest Stem-and-Leaf Plot

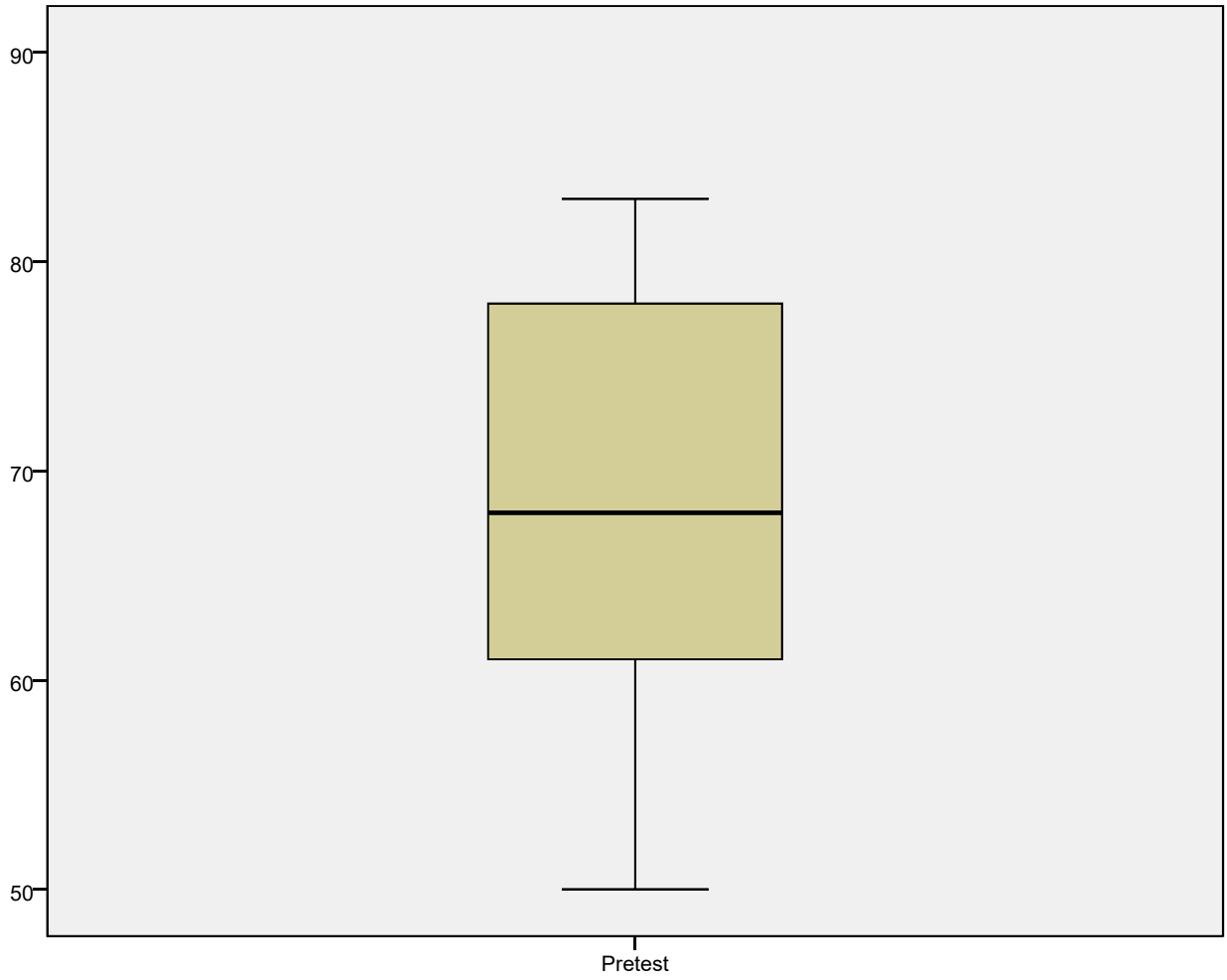
 Frequency    Stem &  Leaf

     3.00        5 .  000
      .00        5 .
     4.00        6 .  0002
     6.00        6 .  557789
     1.00        7 .  0
     5.00        7 .  56889
     4.00        8 .  0123

 Stem width:     10.00
 Each leaf:        1 case(s)
```


Normal Q-Q Plot of Pretest
Expected Normal
2
1
0
-1
-2
-3
40
50
60
70
80
90
Observed Value


Detrended Normal Q-Q Plot of Pretest
Dev from Normal
0.4
0.2
0.0000
-0.2
-0.4
50
60
70
80
90
Observed Value

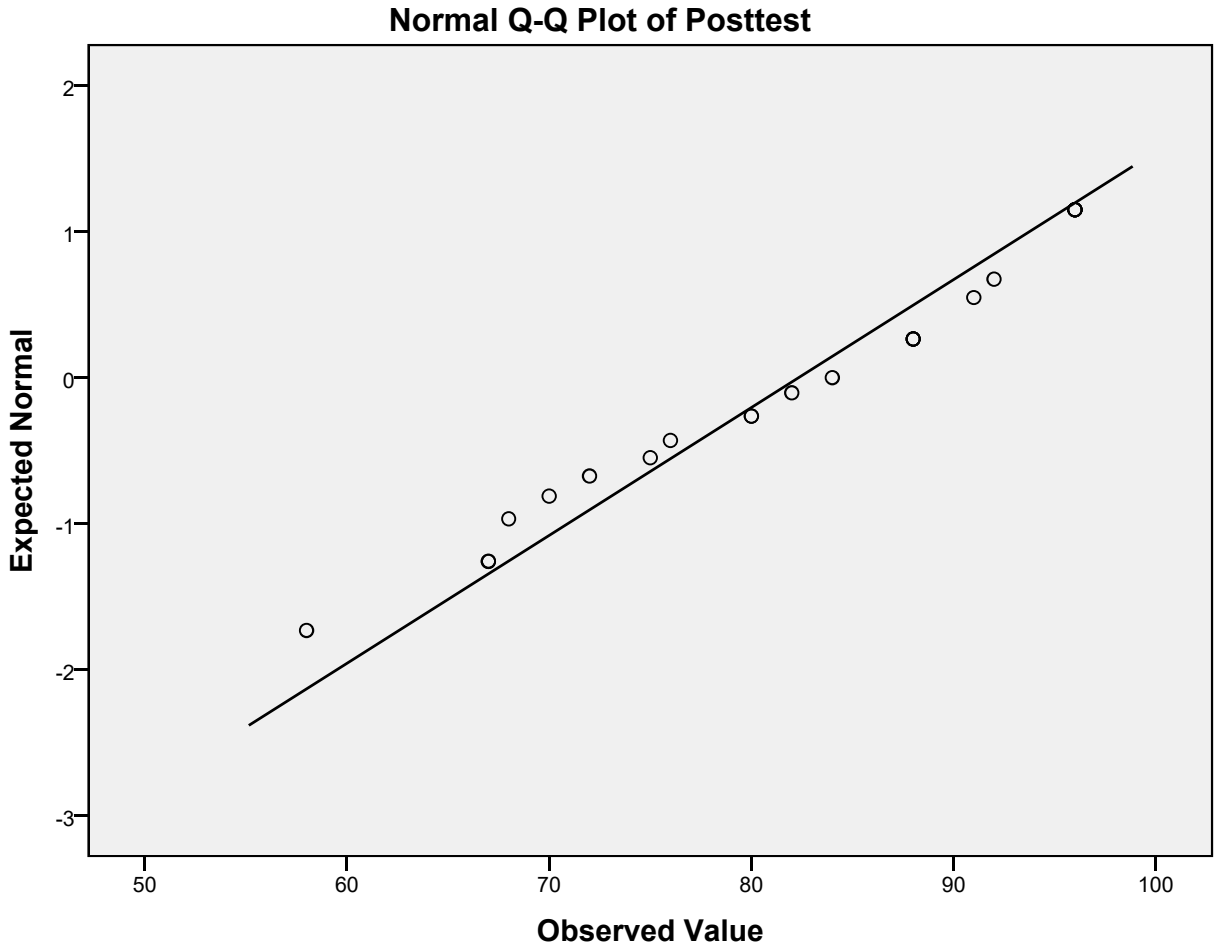


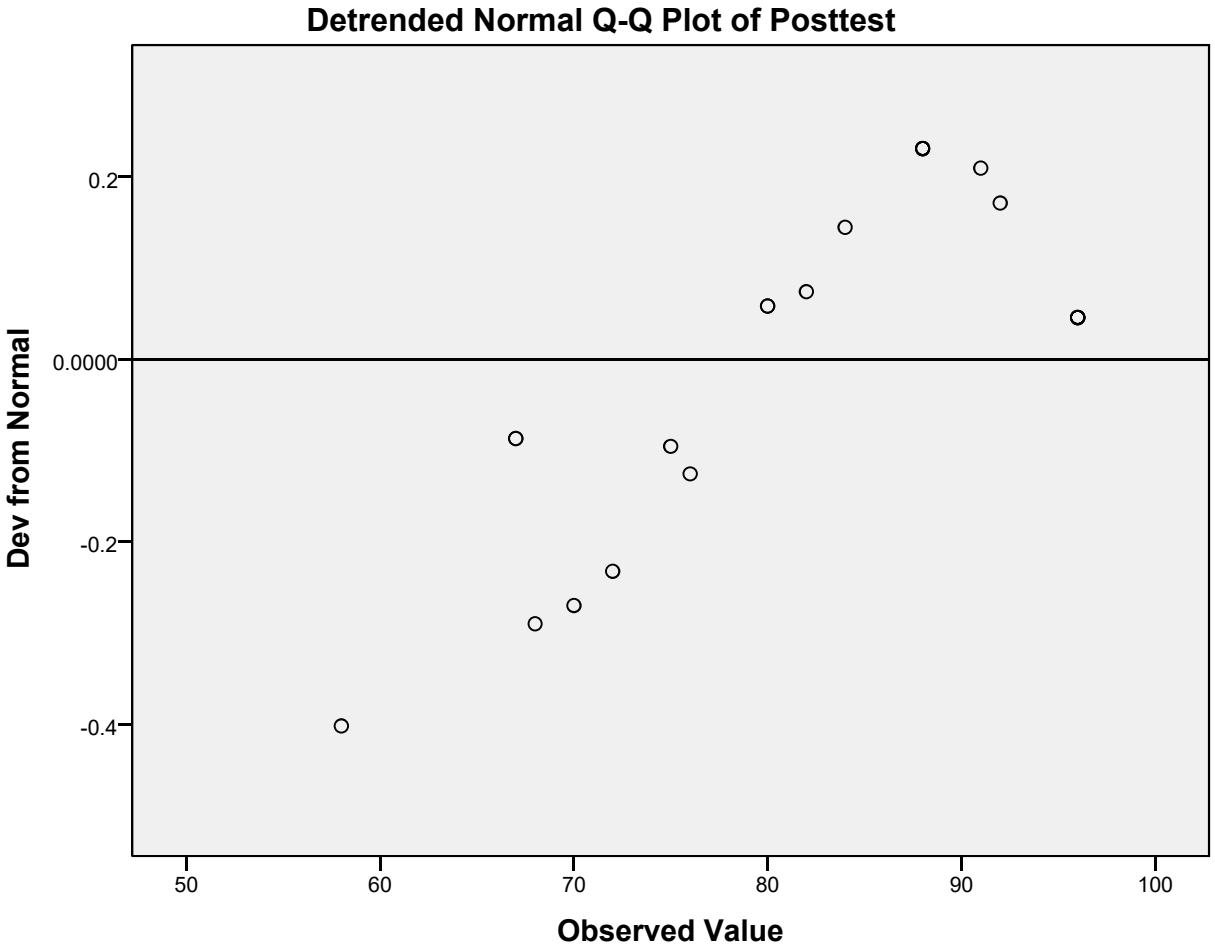
Posttest

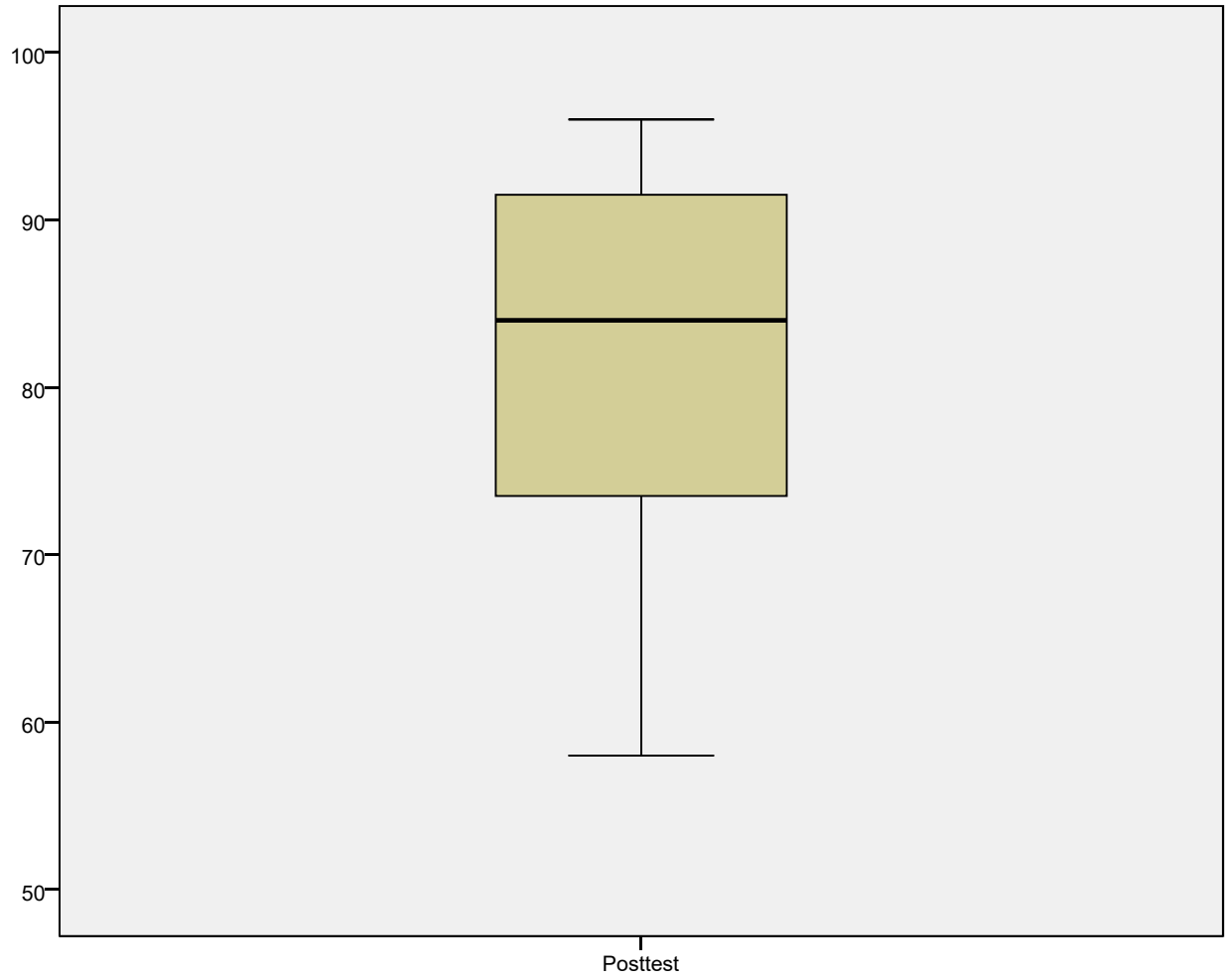
Posttest Stem-and-Leaf Plot

Frequency	Stem &	Leaf
1.00	5 .	8
3.00	6 .	778
4.00	7 .	0256
8.00	8 .	00248888
7.00	9 .	1266666

Stem width: 10.00
Each leaf: 1 case(s)


Normal Q-Q Plot of Posttest
Expected Normal
2
1
0
-1
-2
-3
50
60
70
80
90
100
Observed Value


Detrended Normal Q-Q Plot of Posttest
Dev from Normal
0.2
0.0000
-0.2
-0.4
50
60
70
80
90
100
Observed Value




```
ONEWAY Hasil BY Class
  /STATISTICS HOMOGENEITY
  /MISSING ANALYSIS.
```

Oneway

Test of Homogeneity of Variances

Hasil

Levene Statistic	df1	df2	Sig.
.450	1	44	.506

ANOVA

Hasil

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2212.196	1	2212.196	18.530	.000
Within Groups	5252.957	44	119.385		
Total	7465.152	45			

```
T-TEST PAIRS=Pre WITH Post (PAIRED)
  /CRITERIA=CI(.9500)
  /MISSING=ANALYSIS.
```

T-Test

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest	68.48	23	10.418	2.172
	Posttest	82.35	23	11.412	2.380

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pretest & Posttest	23	.609	.002

Paired Samples Test

		Paired Differences				
					95% Confidence Interval of the Difference	
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper
Pair 1	Pretest - Posttest	-13.870	9.687	2.020	-18.059	-9.680

Paired Samples Test

		t	df	Sig. (2-tailed)
Pair 1	Pretest - Posttest	-6.866	22	.000