**Explore**

|  |  |  |
| --- | --- | --- |
| **Notes** |  |  |
| Output Created |  | 15-MAY-2024 11:03:17 |
| Comments |  |  |
| Input | Data | C:\Users\dorot\Desktop\MasterStudy\Statistics\DataAnalysis.sav |
| Active Dataset | DataSet2 |
| Filter | <none> |
| Weight | <none> |
| Split File | <none> |
| N of Rows in Working Data File | 17 |
| Missing Value Handling | Definition of Missing | User-defined missing values for dependent variables are treated as missing. |
| Cases Used | Statistics are based on cases with no missing values for any dependent variable or factor used. |
| Syntax |  | EXAMINE VARIABLES=Mean\_Jerk\_Y Mean\_Jerk\_V Peaks Time Grasping\_E Grasping\_P Grasping\_D Trainings Level Experience Height Age BY Cluster /PLOT BOXPLOT HISTOGRAM NPPLOT /COMPARE GROUPS /STATISTICS DESCRIPTIVES /CINTERVAL 95 /MISSING LISTWISE /NOTOTAL. |
| Resources | Processor Time | 00:00:10,67 |
| Elapsed Time | 00:00:08,50 |

**Cluster**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Case Processing Summary** |  |  |  |  |  |  |  |
|  | Cluster | Cases |  |  |  |  |  |
| Valid |  | Missing |  | Total |  |
| N | Percent | N | Percent | N | Percent |
| Mean\_Jerk\_Y | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Mean\_Jerk\_V | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Peaks | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Time | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Grasping\_E | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Grasping\_P | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Grasping\_D | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Trainings | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Level | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Experience | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Height | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |
| Age | 0 | 8 | 100,0% | 0 | 0,0% | 8 | 100,0% |
| 1 | 9 | 100,0% | 0 | 0,0% | 9 | 100,0% |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Descriptives** |  |  |  |  |  |
|  | Cluster |  |  | Statistic | Std. Error |
| Mean\_Jerk\_Y | 0 | Mean |  | 17523357,0960 | 6609561,48955 |
| 95% Confidence Interval for Mean | Lower Bound | 1894227,7054 |  |
| Upper Bound | 33152486,4866 |  |
| 5% Trimmed Mean |  | 15823711,3546 |  |
| Median |  | 13348976,5100 |  |
| Variance |  | 349490424672919,000 |  |
| Std. Deviation |  | 18694662,99972 |  |
| Minimum |  | 3,02E+6 |  |
| Maximum |  | 6,26E+7 |  |
| Range |  | 59603178,84 |  |
| Interquartile Range |  | 6955802,71 |  |
| Skewness |  | 2,539 | ,752 |
| Kurtosis |  | 6,874 | 1,481 |
| 1 | Mean |  | 1824817,1846 | 627173,64921 |
| 95% Confidence Interval for Mean | Lower Bound | 378552,1560 |  |
| Upper Bound | 3271082,2131 |  |
| 5% Trimmed Mean |  | 1683277,7499 |  |
| Median |  | 1268773,1630 |  |
| Variance |  | 3540121076328,166 |  |
| Std. Deviation |  | 1881520,94762 |  |
| Minimum |  | 343528,05 |  |
| Maximum |  | 5,85E+6 |  |
| Range |  | 5510288,09 |  |
| Interquartile Range |  | 2355333,82 |  |
| Skewness |  | 1,621 | ,717 |
| Kurtosis |  | 1,839 | 1,400 |
| Mean\_Jerk\_V | 0 | Mean |  | 14252421,0118 | 2164702,29553 |
| 95% Confidence Interval for Mean | Lower Bound | 9133713,4663 |  |
| Upper Bound | 19371128,5572 |  |
| 5% Trimmed Mean |  | 14007052,5639 |  |
| Median |  | 12095770,6550 |  |
| Variance |  | 37487488226162,836 |  |
| Std. Deviation |  | 6122702,68968 |  |
| Minimum |  | 7,39E+6 |  |
| Maximum |  | 2,55E+7 |  |
| Range |  | 18134953,36 |  |
| Interquartile Range |  | 9286248,42 |  |
| Skewness |  | 1,064 | ,752 |
| Kurtosis |  | ,245 | 1,481 |
| 1 | Mean |  | 1772403,5614 | 564974,60221 |
| 95% Confidence Interval for Mean | Lower Bound | 469569,7924 |  |
| Upper Bound | 3075237,3304 |  |
| 5% Trimmed Mean |  | 1688222,8946 |  |
| Median |  | 1118620,1480 |  |
| Variance |  | 2872766710318,440 |  |
| Std. Deviation |  | 1694923,80664 |  |
| Minimum |  | 113172,75 |  |
| Maximum |  | 4,95E+6 |  |
| Range |  | 4833713,62 |  |
| Interquartile Range |  | 2857685,74 |  |
| Skewness |  | 1,035 | ,717 |
| Kurtosis |  | -,202 | 1,400 |
| Peaks | 0 | Mean |  | 90,63 | 7,450 |
| 95% Confidence Interval for Mean | Lower Bound | 73,01 |  |
| Upper Bound | 108,24 |  |
| 5% Trimmed Mean |  | 90,31 |  |
| Median |  | 85,00 |  |
| Variance |  | 443,982 |  |
| Std. Deviation |  | 21,071 |  |
| Minimum |  | 61 |  |
| Maximum |  | 126 |  |
| Range |  | 65 |  |
| Interquartile Range |  | 32 |  |
| Skewness |  | ,480 | ,752 |
| Kurtosis |  | -,346 | 1,481 |
| 1 | Mean |  | 58,78 | 4,278 |
| 95% Confidence Interval for Mean | Lower Bound | 48,91 |  |
| Upper Bound | 68,64 |  |
| 5% Trimmed Mean |  | 57,86 |  |
| Median |  | 57,00 |  |
| Variance |  | 164,694 |  |
| Std. Deviation |  | 12,833 |  |
| Minimum |  | 46 |  |
| Maximum |  | 88 |  |
| Range |  | 42 |  |
| Interquartile Range |  | 15 |  |
| Skewness |  | 1,557 | ,717 |
| Kurtosis |  | 3,213 | 1,400 |
| Time | 0 | Mean |  | 76,6213 | 3,92674 |
| 95% Confidence Interval for Mean | Lower Bound | 67,3360 |  |
| Upper Bound | 85,9065 |  |
| 5% Trimmed Mean |  | 76,2947 |  |
| Median |  | 75,7100 |  |
| Variance |  | 123,354 |  |
| Std. Deviation |  | 11,10650 |  |
| Minimum |  | 62,02 |  |
| Maximum |  | 97,10 |  |
| Range |  | 35,08 |  |
| Interquartile Range |  | 15,62 |  |
| Skewness |  | ,625 | ,752 |
| Kurtosis |  | ,467 | 1,481 |
| 1 | Mean |  | 53,2156 | 3,19618 |
| 95% Confidence Interval for Mean | Lower Bound | 45,8452 |  |
| Upper Bound | 60,5860 |  |
| 5% Trimmed Mean |  | 53,3473 |  |
| Median |  | 59,0000 |  |
| Variance |  | 91,940 |  |
| Std. Deviation |  | 9,58854 |  |
| Minimum |  | 40,03 |  |
| Maximum |  | 64,03 |  |
| Range |  | 24,00 |  |
| Interquartile Range |  | 17,67 |  |
| Skewness |  | -,295 | ,717 |
| Kurtosis |  | -2,181 | 1,400 |
| Grasping\_E | 0 | Mean |  | 3,38 | ,706 |
| 95% Confidence Interval for Mean | Lower Bound | 1,71 |  |
| Upper Bound | 5,04 |  |
| 5% Trimmed Mean |  | 3,31 |  |
| Median |  | 3,00 |  |
| Variance |  | 3,982 |  |
| Std. Deviation |  | 1,996 |  |
| Minimum |  | 1 |  |
| Maximum |  | 7 |  |
| Range |  | 6 |  |
| Interquartile Range |  | 3 |  |
| Skewness |  | ,748 | ,752 |
| Kurtosis |  | -,089 | 1,481 |
| 1 | Mean |  | 1,56 | ,294 |
| 95% Confidence Interval for Mean | Lower Bound | ,88 |  |
| Upper Bound | 2,23 |  |
| 5% Trimmed Mean |  | 1,56 |  |
| Median |  | 2,00 |  |
| Variance |  | ,778 |  |
| Std. Deviation |  | ,882 |  |
| Minimum |  | 0 |  |
| Maximum |  | 3 |  |
| Range |  | 3 |  |
| Interquartile Range |  | 1 |  |
| Skewness |  | -,214 | ,717 |
| Kurtosis |  | ,144 | 1,400 |
| Grasping\_P | 0 | Mean |  | 20,00 | ,500 |
| 95% Confidence Interval for Mean | Lower Bound | 18,82 |  |
| Upper Bound | 21,18 |  |
| 5% Trimmed Mean |  | 20,11 |  |
| Median |  | 20,50 |  |
| Variance |  | 2,000 |  |
| Std. Deviation |  | 1,414 |  |
| Minimum |  | 17 |  |
| Maximum |  | 21 |  |
| Range |  | 4 |  |
| Interquartile Range |  | 2 |  |
| Skewness |  | -1,616 | ,752 |
| Kurtosis |  | 2,471 | 1,481 |
| 1 | Mean |  | 19,56 | ,412 |
| 95% Confidence Interval for Mean | Lower Bound | 18,61 |  |
| Upper Bound | 20,51 |  |
| 5% Trimmed Mean |  | 19,51 |  |
| Median |  | 19,00 |  |
| Variance |  | 1,528 |  |
| Std. Deviation |  | 1,236 |  |
| Minimum |  | 18 |  |
| Maximum |  | 22 |  |
| Range |  | 4 |  |
| Interquartile Range |  | 2 |  |
| Skewness |  | 1,114 | ,717 |
| Kurtosis |  | ,757 | 1,400 |
| Grasping\_D | 0 | Mean |  | 2,13 | ,295 |
| 95% Confidence Interval for Mean | Lower Bound | 1,43 |  |
| Upper Bound | 2,82 |  |
| 5% Trimmed Mean |  | 2,14 |  |
| Median |  | 2,00 |  |
| Variance |  | ,696 |  |
| Std. Deviation |  | ,835 |  |
| Minimum |  | 1 |  |
| Maximum |  | 3 |  |
| Range |  | 2 |  |
| Interquartile Range |  | 2 |  |
| Skewness |  | -,277 | ,752 |
| Kurtosis |  | -1,392 | 1,481 |
| 1 | Mean |  | 1,78 | ,147 |
| 95% Confidence Interval for Mean | Lower Bound | 1,44 |  |
| Upper Bound | 2,12 |  |
| 5% Trimmed Mean |  | 1,81 |  |
| Median |  | 2,00 |  |
| Variance |  | ,194 |  |
| Std. Deviation |  | ,441 |  |
| Minimum |  | 1 |  |
| Maximum |  | 2 |  |
| Range |  | 1 |  |
| Interquartile Range |  | 1 |  |
| Skewness |  | -1,620 | ,717 |
| Kurtosis |  | ,735 | 1,400 |
| Trainings | 0 | Mean |  | 2,000 | ,3536 |
| 95% Confidence Interval for Mean | Lower Bound | 1,164 |  |
| Upper Bound | 2,836 |  |
| 5% Trimmed Mean |  | 1,944 |  |
| Median |  | 1,750 |  |
| Variance |  | 1,000 |  |
| Std. Deviation |  | 1,0000 |  |
| Minimum |  | 1,0 |  |
| Maximum |  | 4,0 |  |
| Range |  | 3,0 |  |
| Interquartile Range |  | 1,4 |  |
| Skewness |  | 1,143 | ,752 |
| Kurtosis |  | 1,357 | 1,481 |
| 1 | Mean |  | 1,778 | ,2222 |
| 95% Confidence Interval for Mean | Lower Bound | 1,265 |  |
| Upper Bound | 2,290 |  |
| 5% Trimmed Mean |  | 1,753 |  |
| Median |  | 1,500 |  |
| Variance |  | ,444 |  |
| Std. Deviation |  | ,6667 |  |
| Minimum |  | 1,0 |  |
| Maximum |  | 3,0 |  |
| Range |  | 2,0 |  |
| Interquartile Range |  | 1,0 |  |
| Skewness |  | ,661 | ,717 |
| Kurtosis |  | -,153 | 1,400 |
| Level | 0 | Mean |  | 15,00 | ,824 |
| 95% Confidence Interval for Mean | Lower Bound | 13,05 |  |
| Upper Bound | 16,95 |  |
| 5% Trimmed Mean |  | 14,89 |  |
| Median |  | 14,50 |  |
| Variance |  | 5,429 |  |
| Std. Deviation |  | 2,330 |  |
| Minimum |  | 13 |  |
| Maximum |  | 19 |  |
| Range |  | 6 |  |
| Interquartile Range |  | 4 |  |
| Skewness |  | ,633 | ,752 |
| Kurtosis |  | -,968 | 1,481 |
| 1 | Mean |  | 14,89 | ,539 |
| 95% Confidence Interval for Mean | Lower Bound | 13,65 |  |
| Upper Bound | 16,13 |  |
| 5% Trimmed Mean |  | 14,88 |  |
| Median |  | 15,00 |  |
| Variance |  | 2,611 |  |
| Std. Deviation |  | 1,616 |  |
| Minimum |  | 13 |  |
| Maximum |  | 17 |  |
| Range |  | 4 |  |
| Interquartile Range |  | 4 |  |
| Skewness |  | -,001 | ,717 |
| Kurtosis |  | -1,450 | 1,400 |
| Experience | 0 | Mean |  | 7,563 | 1,7511 |
| 95% Confidence Interval for Mean | Lower Bound | 3,422 |  |
| Upper Bound | 11,703 |  |
| 5% Trimmed Mean |  | 7,431 |  |
| Median |  | 5,500 |  |
| Variance |  | 24,531 |  |
| Std. Deviation |  | 4,9529 |  |
| Minimum |  | 1,5 |  |
| Maximum |  | 16,0 |  |
| Range |  | 14,5 |  |
| Interquartile Range |  | 8,0 |  |
| Skewness |  | ,737 | ,752 |
| Kurtosis |  | -,580 | 1,481 |
| 1 | Mean |  | 14,111 | 1,9681 |
| 95% Confidence Interval for Mean | Lower Bound | 9,573 |  |
| Upper Bound | 18,650 |  |
| 5% Trimmed Mean |  | 13,901 |  |
| Median |  | 13,000 |  |
| Variance |  | 34,861 |  |
| Std. Deviation |  | 5,9043 |  |
| Minimum |  | 6,0 |  |
| Maximum |  | 26,0 |  |
| Range |  | 20,0 |  |
| Interquartile Range |  | 8,0 |  |
| Skewness |  | ,889 | ,717 |
| Kurtosis |  | 1,058 | 1,400 |
| Height | 0 | Mean |  | 172,50 | 2,500 |
| 95% Confidence Interval for Mean | Lower Bound | 166,59 |  |
| Upper Bound | 178,41 |  |
| 5% Trimmed Mean |  | 172,28 |  |
| Median |  | 170,50 |  |
| Variance |  | 50,000 |  |
| Std. Deviation |  | 7,071 |  |
| Minimum |  | 163 |  |
| Maximum |  | 186 |  |
| Range |  | 23 |  |
| Interquartile Range |  | 9 |  |
| Skewness |  | ,944 | ,752 |
| Kurtosis |  | 1,085 | 1,481 |
| 1 | Mean |  | 171,22 | 2,241 |
| 95% Confidence Interval for Mean | Lower Bound | 166,05 |  |
| Upper Bound | 176,39 |  |
| 5% Trimmed Mean |  | 171,69 |  |
| Median |  | 173,00 |  |
| Variance |  | 45,194 |  |
| Std. Deviation |  | 6,723 |  |
| Minimum |  | 157 |  |
| Maximum |  | 177 |  |
| Range |  | 20 |  |
| Interquartile Range |  | 10 |  |
| Skewness |  | -1,333 | ,717 |
| Kurtosis |  | 1,424 | 1,400 |
| Age | 0 | Mean |  | 24,50 | ,627 |
| 95% Confidence Interval for Mean | Lower Bound | 23,02 |  |
| Upper Bound | 25,98 |  |
| 5% Trimmed Mean |  | 24,61 |  |
| Median |  | 25,00 |  |
| Variance |  | 3,143 |  |
| Std. Deviation |  | 1,773 |  |
| Minimum |  | 21 |  |
| Maximum |  | 26 |  |
| Range |  | 5 |  |
| Interquartile Range |  | 3 |  |
| Skewness |  | -1,231 | ,752 |
| Kurtosis |  | 1,018 | 1,481 |
| 1 | Mean |  | 28,33 | 1,528 |
| 95% Confidence Interval for Mean | Lower Bound | 24,81 |  |
| Upper Bound | 31,86 |  |
| 5% Trimmed Mean |  | 28,37 |  |
| Median |  | 28,00 |  |
| Variance |  | 21,000 |  |
| Std. Deviation |  | 4,583 |  |
| Minimum |  | 22 |  |
| Maximum |  | 34 |  |
| Range |  | 12 |  |
| Interquartile Range |  | 10 |  |
| Skewness |  | ,035 | ,717 |
| Kurtosis |  | -1,485 | 1,400 |

|  |  |  |  |  |  |  |  |
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| **Tests of Normality** |  |  |  |  |  |  |  |
|  | Cluster | Kolmogorov-Smirnova |  |  | Shapiro-Wilk |  |  |
| Statistic | df | Sig. | Statistic | df | Sig. |
| Mean\_Jerk\_Y | 0 | ,425 | 8 | <,001 | ,635 | 8 | <,001 |
| 1 | ,310 | 9 | ,013 | ,775 | 9 | ,011 |
| Mean\_Jerk\_V | 0 | ,211 | 8 | ,200\* | ,892 | 8 | ,247 |
| 1 | ,288 | 9 | ,030 | ,862 | 9 | ,101 |
| Peaks | 0 | ,193 | 8 | ,200\* | ,961 | 8 | ,817 |
| 1 | ,203 | 9 | ,200\* | ,859 | 9 | ,093 |
| Time | 0 | ,155 | 8 | ,200\* | ,965 | 8 | ,853 |
| 1 | ,282 | 9 | ,037 | ,834 | 9 | ,049 |
| Grasping\_E | 0 | ,255 | 8 | ,136 | ,912 | 8 | ,370 |
| 1 | ,248 | 9 | ,116 | ,913 | 9 | ,338 |
| Grasping\_P | 0 | ,260 | 8 | ,118 | ,771 | 8 | ,014 |
| 1 | ,340 | 9 | ,003 | ,839 | 9 | ,056 |
| Grasping\_D | 0 | ,228 | 8 | ,200\* | ,835 | 8 | ,067 |
| 1 | ,471 | 9 | <,001 | ,536 | 9 | <,001 |
| Trainings | 0 | ,191 | 8 | ,200\* | ,888 | 8 | ,223 |
| 1 | ,217 | 9 | ,200\* | ,922 | 9 | ,407 |
| Level | 0 | ,305 | 8 | ,028 | ,822 | 8 | ,049 |
| 1 | ,212 | 9 | ,200\* | ,863 | 9 | ,104 |
| Experience | 0 | ,249 | 8 | ,155 | ,918 | 8 | ,410 |
| 1 | ,174 | 9 | ,200\* | ,949 | 9 | ,680 |
| Height | 0 | ,222 | 8 | ,200\* | ,923 | 8 | ,458 |
| 1 | ,206 | 9 | ,200\* | ,850 | 9 | ,074 |
| Age | 0 | ,236 | 8 | ,200\* | ,850 | 8 | ,095 |
| 1 | ,179 | 9 | ,200\* | ,916 | 9 | ,362 |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| \*. This is a lower bound of the true significance. |  |  |  |  |  |  |  |
| a. Lilliefors Significance Correction |  |  |  |  |  |  |  |

**Mean\_Jerk\_Y**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Mean\_Jerk\_V**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Peaks**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Time**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Grasping\_E**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Grasping\_P**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Grasping\_D**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Trainings**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Level**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Experience**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Height**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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**Age**

**Histograms**

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**Normal Q-Q Plots**

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**Detrended Normal Q-Q Plots**

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