**Appendix 6.**

**The Mean Score and Standard Deviation of Experimental Group in Pretest**

|  |  |  |
| --- | --- | --- |
| **Score** | **Mean Deviation (d)**  | **Squared (d2)** |
| 53 | -4 | 16 |
| 67 | 10 | 100 |
| 73 | 16 | 256 |
| 70 | 13 | 169 |
| 50 | -7 | 49 |
| 60 | 3 | 9 |
| 70 | 13 | 169 |
| 57 | 0 | 0 |
| 53 | -4 | 16 |
| 57 | 0 | 0 |
| 53 | -4 | 16 |
| 60 | 3 | 9 |
| 73 | 16 | 256 |
| 50 | -7 | 49 |
| 53 | -4 | 16 |
| 57 | 0 | 0 |
| 70 | 13 | 169 |
| 57 | 0 | 0 |
| 40 | -17 | 289 |
| 70 | 13 | 169 |
| 50 | -7 | 49 |
| 47 | -10 | 100 |
| 50 | -7 | 49 |
| 37 | -20 | 400 |
| 70 | 13 | 169 |
| 53 | -4 | 16 |
| 40 | -17 | 289 |
| 63 | 6 | 36 |
| 40 | -17 | 289 |
| 57 | 0 | 0 |
| 60 | 3 | 9 |
| 53 | -4 | 16 |
| $∑x$ **= 1813** |  | $∑d^{2}= $**3179** |

Mean (m) = $\frac{∑x}{N}$

 m = $\frac{1813}{32}$

 = 56.6

S.d = $\sqrt{\frac{∑d^{2}}{N}}$

 = $\sqrt{\frac{3179}{32}}$

 = $\sqrt{99.34375}$

 = 9.97

**Appendix 7.**

**The Mean Score and Standard Deviation of Experimental Group in Posttest**

|  |  |  |
| --- | --- | --- |
| **Score** | **Mean Deviation (d)**  | **Squared (d2)** |
| 67 | -2 | 4 |
| 77 | 8 | 64 |
| 87 | 18 | 324 |
| 83 | 14 | 196 |
| 63 | -6 | 36 |
| 73 | 4 | 16 |
| 80 | 11 | 121 |
| 67 | -2 | 4 |
| 67 | -2 | 4 |
| 67 | -2 | 4 |
| 63 | -6 | 36 |
| 73 | 4 | 16 |
| 87 | 18 | 324 |
| 60 | -9 | 81 |
| 67 | -2 | 4 |
| 67 | -2 | 4 |
| 83 | 14 | 196 |
| 67 | -2 | 4 |
| 53 | -16 | 256 |
| 83 | 14 | 196 |
| 63 | -6 | 36 |
| 57 | -12 | 144 |
| 63 | -6 | 36 |
| 47 | -22 | 484 |
| 80 | 11 | 121 |
| 63 | -6 | 36 |
| 53 | -16 | 256 |
| 77 | 8 | 64 |
| 50 | -19 | 361 |
| 70 | 1 | 1 |
| 67 | -2 | 4 |
| 73 | 4 | 16 |
| $∑x$ **= 2197** |  | $∑d^{2}= $**3449** |

Mean (m) = $\frac{∑x}{N}$

 m = $\frac{2197}{32}$

 = 68.6

S.d = $\sqrt{\frac{∑d^{2}}{N}}$

 = $\sqrt{\frac{3449}{32}}$

 = $\sqrt{107.78125}$

 = 10.38

**Appendix 8.**

**The Mean Score and Standard Deviation of Control Group in Pretest**

|  |  |  |
| --- | --- | --- |
| **Score** | **Mean Deviation (d)**  | **Squared (d2)** |
| 50 | -5 |  25  |
| 57 | 2 | 4 |
| 73 | 18 | 324 |
| 57 | 2 | 4 |
| 60 | 5 | 25 |
| 57 | 2 | 4 |
| 73 | 18 | 324 |
| 60 | 5 | 25 |
| 57 | 2 | 4 |
| 43 | -12 | 144 |
| 60 | 5 | 25 |
| 53 | -2 | 4 |
| 60 | 5 | 25 |
| 33 | -22 | 484 |
| 60 | 5 | 25 |
| 50 | -5 | 25 |
| 57 | 2 | 4 |
| 50 | -5 | 25 |
| 70 | 15 | 225 |
| 57 | 2 | 4 |
| 47 | -8 | 64 |
| 50 | -5 | 25 |
| 33 | -22 | 484 |
| 70 | 15 | 225 |
| 53 | -2 | 4 |
| 40 | -15 | 225 |
| 50 | -5 | 25 |
| 40 | -15 | 225 |
| 50 | -5 | 25 |
| 60 | 5 | 25 |
| 53 | -2 | 4 |
| 50 | -5 | 25 |
| 73 | 18 | 324 |
| 57 | 2 | 4 |
| 57 | 2 | 4 |
| 57 | 2 | 4 |
| **1977** |  | $∑d^{2}= $**2610** |

Mean (m) = $\frac{∑x}{N}$

 m = $\frac{1977}{36}$

 = 54.9

S.d = $\sqrt{\frac{∑d^{2}}{N}}$

 = $\sqrt{\frac{2610}{36}}$

 = $\sqrt{72.5}$

 = 8.51

**Appendix 9.**

**The Mean Score and Standard Deviation of Control Group in Posttest**

|  |  |  |
| --- | --- | --- |
| **Score** | **Mean Deviation (d)**  | **Squared (d2)** |
| 60 | -3 | 9 |
| 67 | 4 | 16 |
| 80 | 17 | 289 |
| 60 | -3 | 9 |
| 60 | -3 | 9 |
| 70 | 7 | 49 |
| 67 | 4 | 16 |
| 70 | 7 | 49 |
| 67 | 4 | 16 |
| 53 | -10 | 100 |
| 73 | 10 | 100 |
| 63 | 0 | 0 |
| 70 | 7 | 49 |
| 43 | -20 | 400 |
| 63 | 0 | 0 |
| 60 | -3 | 9 |
| 57 | -6 | 36 |
| 60 | -3 | 9 |
| 70 | 7 | 49 |
| 67 | 4 | 16 |
| 57 | -6 | 36 |
| 60 | -3 | 9 |
| 40 | -23 | 529 |
| 70 | 7 | 49 |
| 63 | 0 | 0 |
| 53 | -10 | 100 |
| 63 | 0 | 0 |
| 50 | -13 | 169 |
| 53 | -10 | 100 |
| 70 | 7 | 49 |
| 63 | 0 | 0 |
| 60 | -3 | 9 |
| 80 | 17 | 289 |
| 67 | 4 | 16 |
| 60 | -3 | 9 |
| 67 | 4 | 16 |
| **2256** |  | $$∑d^{2}= 3421$$ |

Mean (m) = $\frac{∑x}{N}$

 m = $\frac{2256}{36}$

 = 62.6

S.d = $\sqrt{\frac{∑d^{2}}{N}}$

 = $\sqrt{\frac{3421}{36}}$

 = $\sqrt{95.027778}$

 = 9.75