CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA
4.1 Introduction:

Analysis of data means studying the organized material in order to discover inherent fact. The data are studied from as many angles as possible to explore the new facts. Analysis of data is the most skilled task. It is the task of researcher's own judgement and skill.

The purpose of analysis was to review the managerial creativity amongst the Head of high schools of Aurangabad district. The data has been gathered by survey method by administration of Managerial creativity test to the selected sample from all three medium of schools i.e. English, Marathi and Urdu schools of Aurangabad district. On the collection of requisite data, the large amount of information was available with the researcher. The researcher then did sorting, classifying, analyzing and interpreting of the data i.e. data processing.
Data Processing:

The data after collection was processed and analyzed in accordance with the outline laid down for the purpose at the time of developing the research plan. This was essential for analysis and comparison to have all relevant data.

Data processing has been described as a particular method of doing something; it generally involves a number of set of operations. Researcher after collecting the data classified and consolidated the information, which is collected in such a way that, it provides a blueprint and a framework for analysis. It has helped the researcher to detect abnormalities in the research.

Therefore the researcher carefully did the analysis of data under the guidance of her guide. The data was compiled and interpreted using the statistics which is most appropriate for the present study to extract the result.
### TABLE NO : 5 The managerial creativity of the head of high schools of Aurangabad District

<table>
<thead>
<tr>
<th>C.I.</th>
<th>f</th>
<th>$x_i$</th>
<th>$fx_i$</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89</td>
<td>14</td>
<td>-3</td>
<td>-42</td>
</tr>
<tr>
<td>90-94</td>
<td>16</td>
<td>-2</td>
<td>-32</td>
</tr>
<tr>
<td>95-99</td>
<td>31</td>
<td>-1</td>
<td>-31.105</td>
</tr>
<tr>
<td>100-104</td>
<td>22</td>
<td>0</td>
<td>00</td>
</tr>
<tr>
<td>105-109</td>
<td>22</td>
<td>1</td>
<td>22</td>
</tr>
<tr>
<td>110-114</td>
<td>09</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>115-119</td>
<td>04</td>
<td>3</td>
<td>12.52</td>
</tr>
</tbody>
</table>

$\textbf{N=118}$ \quad $\sum fx_i = (-53)$

Mean = $\text{A.M} + \frac{\sum f x_i}{N} \times i$

Mean = $102 + \frac{(-53)}{118} \times 5$

Mean = $102 - \frac{265}{118}$

Mean = $102 - 2.245$

Mean = $99.755$

**INTERPRETATION:**
The mean of Managerial creativity of head of High Schools of Aurangabad District is 99.755 which fall in Normal Range, hence the head of high schools of Aurangabad District possess normal range of Managerial creativity.

**TABLE No 6 : The managerial creativity of the head of English Medium high schools of Aurangabad District**

<table>
<thead>
<tr>
<th>C.I.</th>
<th>F</th>
<th>$x^1$</th>
<th>$fx^1$</th>
<th>$fx^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89</td>
<td>00</td>
<td>-3</td>
<td>-00</td>
<td>00</td>
</tr>
<tr>
<td>90-94</td>
<td>04</td>
<td>-2</td>
<td>-8</td>
<td>16</td>
</tr>
<tr>
<td>95-99</td>
<td>07</td>
<td>-1</td>
<td>-7.15</td>
<td>07</td>
</tr>
<tr>
<td>100-104</td>
<td>03</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>105-109</td>
<td>04</td>
<td>1</td>
<td>04</td>
<td>04</td>
</tr>
<tr>
<td>110-114</td>
<td>02</td>
<td>2</td>
<td>04</td>
<td>08</td>
</tr>
<tr>
<td>115-119</td>
<td>00</td>
<td>3</td>
<td>00.08</td>
<td>00</td>
</tr>
</tbody>
</table>

$N=20$ $\sum fx^1=-7$ $\sum fx^2=35$

Mean = $\text{A.M} + \frac{\sum fx^1}{N} \times i$

Mean = $102 + \frac{(-7)}{20} \times 5$

Mean = $102 - \frac{35}{20}$
Mean = 102 – 1.750

Mean = 100.250

\[ S.D = i \times \sqrt{\frac{\sum fx^2}{N} - \left( \frac{\sum fx}{N} \right)^2} \]

\[ S.D = 5 \times \sqrt{\frac{35}{20} - \left( \frac{-7}{20} \right)^2} \]

\[ S.D = 5 \times \sqrt{1.750 - (0.350)^2} \]

\[ S.D = 5 \times \sqrt{1.750 - 0.122} \]

\[ S.D = 5 \times \sqrt{1.628} \]

\[ S.D = 5 \times 1.275 \]

\[ S.D = 6.375 \]

**INTERPRETATION:**

It is evidence from the Table No. 04 that the Mean of Managerial creativity of head of English Medium High Schools of Aurangabad District is 100.25 which falls in “Normal Range”.
TABLE NO 7: The managerial creativity of the head of Marathi Medium high schools of Aurangabad District

<table>
<thead>
<tr>
<th>C.I.</th>
<th>F</th>
<th>$x^1$</th>
<th>$fx^1$</th>
<th>$fx^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89</td>
<td>12</td>
<td>-3</td>
<td>-36</td>
<td>108</td>
</tr>
<tr>
<td>90-94</td>
<td>10</td>
<td>-2</td>
<td>-20</td>
<td>40</td>
</tr>
<tr>
<td>95-99</td>
<td>17</td>
<td>-1</td>
<td>-17.73</td>
<td>17</td>
</tr>
<tr>
<td>100-104</td>
<td>15</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>105-109</td>
<td>11</td>
<td>1</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>110-114</td>
<td>07</td>
<td>2</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>115-119</td>
<td>03</td>
<td>3</td>
<td>09.34</td>
<td>27</td>
</tr>
</tbody>
</table>

$N=75 \quad \sum fx^1=(-39) \quad \sum fx^2=231$

Mean = A.M + $\frac{\sum fx^1}{N} \times i$

Mean = 102 + $\frac{(-39)}{75} \times 5$

Mean = 102 - $\frac{195}{75}$

Mean = 102 – 2.600

Mean = 99.400
S.D = \sqrt{\frac{\sum fx^2}{N} - \left(\frac{\sum fx}{N}\right)^2}

S.D = 5 \times \sqrt{\frac{231}{75} - \left(\frac{-39}{75}\right)^2}

S.D = 5 \times \sqrt{3.08 - (0.52)^2}

S.D = 5 \times \sqrt{3.08 - 0.270}

S.D = 5 \times 2.81

S.D = 5 \times 1.676

S.D = 8.380

**INTERPRETATION:**

It is evidence from the Table No. 04 that the Mean of Managerial creativity of head of Marathi Medium High Schools of Aurangabad District is 99.400 which comes in “Normal Range”.
### TABLE NO 8: The managerial creativity of the head of Urdu Medium high schools of Aurangabad District

<table>
<thead>
<tr>
<th>C.I.</th>
<th>F</th>
<th>X'</th>
<th>fX'</th>
<th>fX'^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89</td>
<td>02</td>
<td>-3</td>
<td>-6</td>
<td>18</td>
</tr>
<tr>
<td>90-94</td>
<td>02</td>
<td>-2</td>
<td>-4</td>
<td>08</td>
</tr>
<tr>
<td>95-99</td>
<td>07</td>
<td>-1</td>
<td>-7.17</td>
<td>07</td>
</tr>
<tr>
<td>100-104</td>
<td>04</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>105-109</td>
<td>07</td>
<td>1</td>
<td>07</td>
<td>07</td>
</tr>
<tr>
<td>110-114</td>
<td>00</td>
<td>2</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>115-119</td>
<td>01</td>
<td>3</td>
<td>03</td>
<td>09</td>
</tr>
<tr>
<td><strong>N=23</strong></td>
<td></td>
<td></td>
<td><strong>Σ fx' =(-7)</strong></td>
<td><strong>Σ fx'^2 =49</strong></td>
</tr>
</tbody>
</table>

Mean = A.M + \( \frac{\sum fX'}{N} \times i \)

Mean = 102 + \( \frac{-7}{23} \) \times 5

Mean = 102 - \( \frac{35}{23} \)

Mean = 102 – 1.521

Mean = 100.478
\[
S.D = i \times \sqrt{\frac{\sum fx^2}{N} - \left(\frac{\sum fx}{N}\right)^2}
\]
\[
S.D = 5 \times \sqrt{\frac{49}{23} \left(\frac{-7}{23}\right)^2}
\]
\[
S.D = 5 \times \sqrt{2.130 - (0.304)^2}
\]
\[
S.D = 5 \times \sqrt{2.130 - 0.092}
\]
\[
S.D = 5 \times \sqrt{2.030}
\]
\[
S.D = 5 \times 1.427
\]
\[
S.D = 7.135
\]

**INTERPRETATION:**

It is evidence from the Table No. 04 that the Mean of Managerial creativity of head of Urdu Medium High Schools of Aurangabad District is 100.478 which comes in “Normal Range”.
TABLE NO: 9 Showing C.R of English and Marathi Medium High Schools of Aurangabad District.

<table>
<thead>
<tr>
<th>Head of English Medium High Schools</th>
<th>Head of Marathi Medium High Schools</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean ( (M_1) ) Total ( (N_1) ) S.D. ( (\sigma_1) )</td>
<td>Mean ( (M_2) ) Total ( (N_2) ) S.D. ( (\sigma_2) )</td>
<td>0.493</td>
</tr>
<tr>
<td>100.25 20 6.375</td>
<td>99.40 75 8.380</td>
<td></td>
</tr>
</tbody>
</table>

\[
C.R. = \frac{M_1 - M_2}{SEM}
\]

\[
SEM = \sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}
\]

\[
SEM = \sqrt{\frac{(6.375)^2}{20} + \frac{(8.380)^2}{75}}
\]

\[
SEM = \sqrt{\frac{40.640}{20} + \frac{70.224}{75}}
\]

\[
SEM = \sqrt{2.032 + 0.936}
\]

\[
SEM = \sqrt{2.968}
\]

\[
SEM = 1.722
\]
C.R. = \frac{M_1 - M_2}{SEM}

C.R. = \frac{100.25 - 99.4}{1.722}

C.R. = \frac{0.85}{1.722}

C.R. = 0.493

**INTERPRETATION:**

Since C.R. is 0.493 is not significant at 0.05 level. Hence, there is no significant difference between the Managerial creativity of Head of English & Marathi Medium High Schools of Aurangabad District.
**TABLE NO: 10. Showing C.R of Urdu and English Medium High School of Aurangabad District.**

<table>
<thead>
<tr>
<th>Head of Urdu Medium High Schools</th>
<th>Mean (M₁)</th>
<th>Total (N₁)</th>
<th>S.D. (σ₁)</th>
<th>Head of English Medium High Schools</th>
<th>Mean (M₂)</th>
<th>Total (N₂)</th>
<th>S.D. (σ₂)</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.47</td>
<td>23</td>
<td>7.135</td>
<td></td>
<td>100.25</td>
<td>20</td>
<td>6.375</td>
<td>0.106</td>
</tr>
</tbody>
</table>

\[
C.R. = \frac{M_1 - M_2}{SEM} \\
SEM = \sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}} \\
SEM = \sqrt{\frac{(7.135)^2}{23} + \frac{(6.375)^2}{20}} \\
SEM = \sqrt{\frac{50.908}{23} + \frac{40.640}{20}} \\
SEM = \sqrt{2.213 + 2.032} \\
SEM = \sqrt{4.245} \\
SEM = 2.060
\]
C.R. = \frac{M_1 - M_2}{SEM}

C.R. = \frac{100.47 - 100.25}{2.060}

C.R. = \frac{0.22}{2.05}

C.R. = 0.106

**INTERPRETATION:**

Since C.R. is 0.106 is not significant at 0.05 level. Hence, there is no significant difference between the Managerial creativity of Head of Urdu & English Medium High Schools of Aurangabad District.
TABLE NO: 11. Showing C.R of Urdu and Marathi Medium High School of Aurangabad District.

<table>
<thead>
<tr>
<th>Head of Urdu Medium High Schools</th>
<th>Head of Marathi Medium High Schools</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean ( (M_1) )</td>
<td>Total ( (N_1) )</td>
<td>S.D. ( (\sigma_1) )</td>
</tr>
<tr>
<td>100.47</td>
<td>23</td>
<td>7.135</td>
</tr>
</tbody>
</table>

\[
C.R. = \frac{M_1 - M_2}{SEM}
\]

\[
SEM = \sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}
\]

\[
SEM = \sqrt{\frac{(7.135)^2}{23} + \frac{(8.380)^2}{75}}
\]

\[
SEM = \sqrt{\frac{50.90}{23} + \frac{70.224}{75}}
\]

\[
SEM = \sqrt{2.213 + 0.936}
\]

\[
SEM = \sqrt{3.149}
\]

\[
SEM = 1.774
\]
\[ C.R. = \frac{M_1 - M_2}{SEM} \]
\[ C.R. = \frac{100.47 - 99.40}{1.77} \]
\[ C.R. = \frac{1.07}{1.77} \]
\[ C.R. = 0.604 \]

**INTERPRETATION:**

Since C.R. is 0.604 is not significant at 0.05 level. Hence, there is no significant difference between the Managerial creativity of Head of Urdu & Marathi Medium High Schools of Aurangabad District.
TABLE NO 12 : The managerial creativity of the head of Urban area high schools of Aurangabad District

<table>
<thead>
<tr>
<th>C.I.</th>
<th>f</th>
<th>x&lt;sup&gt;1&lt;/sup&gt;</th>
<th>fx&lt;sup&gt;1&lt;/sup&gt;</th>
<th>fx&lt;sup&gt;2&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89</td>
<td>04</td>
<td>-3</td>
<td>-12</td>
<td>36</td>
</tr>
<tr>
<td>90-94</td>
<td>04</td>
<td>-2</td>
<td>-8</td>
<td>16</td>
</tr>
<tr>
<td>95-99</td>
<td>13</td>
<td>-1</td>
<td>-13.33</td>
<td>13</td>
</tr>
<tr>
<td>100-104</td>
<td>05</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>105-109</td>
<td>08</td>
<td>08</td>
<td>08</td>
<td>08</td>
</tr>
<tr>
<td>110-114</td>
<td>01</td>
<td>02</td>
<td>04</td>
<td></td>
</tr>
<tr>
<td>115-119</td>
<td>01</td>
<td>03&lt;sub&gt;13&lt;/sub&gt;</td>
<td>09</td>
<td></td>
</tr>
</tbody>
</table>

\[ \text{Mean} = 102 + \frac{(-20)}{36} \times 5 \]

\[ \text{Mean} = 102 - \frac{100}{36} \]

\[ \text{Mean} = 102 - 2.777 \]

\[ \text{Mean} = 99.223 \]

Mean = A.M + \( \frac{\sum fx^1}{N} \times i \)
\[ S.D = i \times \sqrt{\frac{\sum fx^2}{N} - \left( \frac{\sum fx}{N} \right)^2} \]

\[ S.D = 5 \times \sqrt{\frac{86}{36} - \left( \frac{-20}{36} \right)^2} \]

\[ S.D = 5 \times \sqrt{2.388 - \left( 0.555 \right)^2} \]

\[ S.D = 5 \times \sqrt{2.388 - 0.308} \]

\[ S.D = 5 \times 1.442 \]

\[ S.D = 7.210 \]

**INTERPRETATION:**

It is evident from the Table No. 4 the mean of Managerial creativity of Head of Urban area of Aurangabad District is 99.223 which comes in “Normal range”.
**TABLE NO 13**: The managerial creativity of the head of Rural area high schools of Aurangabad District

<table>
<thead>
<tr>
<th>C.I.</th>
<th>f</th>
<th>x₁</th>
<th>fx₁</th>
<th>f x²</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89</td>
<td>10</td>
<td>-3</td>
<td>-30</td>
<td>90</td>
</tr>
<tr>
<td>90-94</td>
<td>13</td>
<td>-2</td>
<td>-26</td>
<td>52</td>
</tr>
<tr>
<td>95-99</td>
<td>17</td>
<td>-1</td>
<td>-17</td>
<td>17</td>
</tr>
<tr>
<td>100-104</td>
<td>16</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>105-109</td>
<td>15</td>
<td>1</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>110-114</td>
<td>08</td>
<td>2</td>
<td>16</td>
<td>32</td>
</tr>
<tr>
<td>115-119</td>
<td>03</td>
<td>3</td>
<td>09.40</td>
<td>27</td>
</tr>
</tbody>
</table>

N=82  \[ \sum fx₁ = (-33) \quad \sum fx² = 233 \]

Mean = A.M + \( \frac{\sum fx₁}{N} \times i \)

Mean = 102 + \( \frac{(-33)}{82} \times 5 \)

Mean = 102 - \( \frac{165}{82} \)

Mean = 102 - 2.012

Mean = 99.988
\begin{align*}
S.D &= i \times \sqrt{\frac{\sum fx^2}{N} - \left( \frac{\sum fx}{N} \right)^2} \\
S.D &= 5 \times \sqrt{\frac{233}{82} - \left( \frac{-33}{82} \right)^2} \\
S.D &= 5 \times \sqrt{2.841 - (0.402)^2} \\
S.D &= 5 \times \sqrt{2.841 - 0.161} \\
S.D &= 5 \times 2.680 \\
S.D &= 5 \times 1.637 \\
S.D &= 8.185
\end{align*}

**INTERPRETATION:**

It is evidence from the Table No. 4 the mean of Managerial creativity of Head of Rural area of Aurangabad District is 99.988 which comes in “Normal range”.
**TABLE NO: 14. Showing C.R of Urban and Rural Area High Schools of Aurangabad District.**

<table>
<thead>
<tr>
<th>Head of Rural High Schools</th>
<th>Head of Urban High Schools</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (M₁)</td>
<td>Total (N₁)</td>
<td>S.D. (σ₁)</td>
</tr>
<tr>
<td>99.988</td>
<td>82</td>
<td>8.185</td>
</tr>
</tbody>
</table>

\[
C.R. = \frac{M_1 - M_2}{SEM}
\]

\[
SEM = \sqrt{\frac{\sigma^2_1 + \sigma^2_2}{N_1 \cdot N_2}}
\]

\[
SEM = \sqrt{\frac{(8.185)^2 + (7.210)^2}{82 \cdot 36}}
\]

\[
SEM = \sqrt{\frac{66.994 + 51.984}{82 \cdot 36}}
\]

\[
SEM = \sqrt{0.817 + 1.444}
\]

\[
SEM = \sqrt{2.261}
\]

\[
SEM = 1.503
\]
C.R. = \frac{M_1 - M_2}{SEM}

C.R. = \frac{99.988 - 99.223}{1.503}

C.R. = \frac{0.765}{1.503}

C.R. = 0.508

**INTERPRETATION:**

Since C.R. is 0.508 is not significant at 0.05 level. Hence, there is no significant difference between the Managerial Creativity of Head of Rural and Urban area high schools of Aurangabad District.
### TABLE NO 15: The managerial creativity of Male head of high schools of Aurangabad District

<table>
<thead>
<tr>
<th>C.I.</th>
<th>f</th>
<th>$x^1$</th>
<th>$fx^1$</th>
<th>$fx^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89</td>
<td>09</td>
<td>-3</td>
<td>-27</td>
<td>81</td>
</tr>
<tr>
<td>90-94</td>
<td>14</td>
<td>-2</td>
<td>-28</td>
<td>56</td>
</tr>
<tr>
<td>95-99</td>
<td>18</td>
<td>-1</td>
<td>-18.73</td>
<td>18</td>
</tr>
<tr>
<td>100-104</td>
<td>12</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>105-109</td>
<td>14</td>
<td>1</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>110-114</td>
<td>04</td>
<td>2</td>
<td>08</td>
<td>16</td>
</tr>
<tr>
<td>115-119</td>
<td>03</td>
<td>3</td>
<td>09.31</td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>N=74</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$\sum fx^1$=(-42)</td>
<td>$\sum fx^2$=212</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Mean = A.M + $\frac{\sum fx^1 \times i}{N}$

Mean = 102 + $\frac{(-42)}{74} \times 5$

Mean = 102 - $\frac{210}{74}$

Mean = 99.163
\[ S.D = i \sqrt{\frac{\sum fx^2}{N} - \left( \frac{\sum fx}{N} \right)^2} \]

\[ S.D = 5 \times \sqrt{\frac{212}{74} + \left( \frac{-42}{74} \right)^2} \]

\[ S.D = 5 \times \sqrt{2.864 - (0.567)^2} \]

\[ S.D = 5 \times \sqrt{2.864 - 0.322} \]

\[ S.D = 5 \times \sqrt{2.542} \]

\[ S.D = 5 \times 1.594 \]

\[ S.D = 7.971 \]

**INTERPRETATION:**

It is evidence from the Table No. 4, the mean of Managerial creativity of Male Head of high schools of Aurangabad District is 99.163 which come under “normal range”.
**TABLE NO 16 :The managerial creativity of Female head of high schools of Aurangabad District**

<table>
<thead>
<tr>
<th>C.I.</th>
<th>f</th>
<th>$x^1$</th>
<th>$fx^1$</th>
<th>$f x^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89</td>
<td>05</td>
<td>-3</td>
<td>-15</td>
<td>45</td>
</tr>
<tr>
<td>90-94</td>
<td>02</td>
<td>-2</td>
<td>-4</td>
<td>08</td>
</tr>
<tr>
<td>95-99</td>
<td>13</td>
<td>-1</td>
<td>-13.32</td>
<td>13</td>
</tr>
<tr>
<td>100-104</td>
<td>10</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>105-109</td>
<td>08</td>
<td>1</td>
<td>08</td>
<td>08</td>
</tr>
<tr>
<td>110-114</td>
<td>05</td>
<td>2</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>115-119</td>
<td>01</td>
<td>3</td>
<td>03.21</td>
<td>09</td>
</tr>
</tbody>
</table>

\[ \text{Mean} = \text{A.M} + \frac{\sum f x^1}{N} \times i \]

\[ \text{Mean} = 102 + \frac{(-11)}{44} \times 5 \]

\[ \text{Mean} = 102 - \frac{55}{44} \]

\[ \text{Mean} = 102 - 1.250 \]

\[ \text{Mean} = 100.75 \]
\[ S.D = i \times \sqrt{\frac{\sum fx^2}{N} - \left( \frac{\sum fx}{N} \right)^2} \]

\[ S.D = 5 \times \sqrt{\frac{103}{44} - \left( \frac{-11}{44} \right)^2} \]

\[ S.D = 5 \times \sqrt{2.340 - (0.250)^2} \]

\[ S.D = 5 \times \sqrt{2.340 - 0.0625} \]

\[ S.D = 5 \times \sqrt{2.277} \]

\[ S.D = 5 \times 1.508 \]

\[ S.D = 7.540 \]

**INTERPRETATION:**

It is evidence from the Table No. 4. the mean of Managerial creativity of Female Head of high schools of Aurangabad District is 100.75 which come under “normal range”.
TABLE NO: 17. Showing C.R of Male and Female head High Schools of Aurangabad District.

<table>
<thead>
<tr>
<th>Female Head of High Schools</th>
<th>Mean (M₁)</th>
<th>Total (N₁)</th>
<th>S.D. (σ₁)</th>
<th>Male Head of High Schools</th>
<th>Mean (M₂)</th>
<th>Total (N₂)</th>
<th>S.D. (σ₂)</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.75</td>
<td>44</td>
<td>7.540</td>
<td>99.163</td>
<td>74</td>
<td>7.971</td>
<td></td>
<td>1.089</td>
</tr>
</tbody>
</table>

\[
\text{C.R.} = \frac{M_1 - M_2}{\text{SEM}}
\]

\[
\text{SEM} = \sqrt{\frac{\sigma_1^2}{N_1} + \frac{\sigma_2^2}{N_2}}
\]

\[
\text{SEM} = \sqrt{\frac{(7.540)^2}{44} + \frac{(7.971)^2}{74}}
\]

\[
\text{SEM} = \sqrt{\frac{56.851}{44} + \frac{63.549}{74}}
\]

\[
\text{SEM} = \sqrt{1.292 + 0.858}
\]

\[
\text{SEM} = \sqrt{2.150}
\]

\[
\text{SEM} = 1.466
\]
\[
\text{C.R.} = \frac{M_1 - M_2}{SEM} \\
\text{C.R.} = \frac{100.75 - 99.16}{1.466} \\
\text{C.R.} = \frac{1.59}{1.46} \\
\text{C.R.} = 1.089
\]

**INTERPRETATION:**

Since C.R. is 1.089 is not significant at 0.05 level. Hence, there is no significant difference between the Managerial Creativity of Male and Female Head of High Schools of Aurangabad districts.
TABLE NO: 18. The managerial creativity of More Experience head of high schools of Aurangabad District

<table>
<thead>
<tr>
<th>C.I.</th>
<th>f</th>
<th>$x^1$</th>
<th>$fx^1$</th>
<th>$fx^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89</td>
<td>14</td>
<td>-3</td>
<td>-42</td>
<td>125</td>
</tr>
<tr>
<td>90-94</td>
<td>13</td>
<td>-2</td>
<td>-26</td>
<td>52</td>
</tr>
<tr>
<td>95-99</td>
<td>28</td>
<td>-1</td>
<td>-28.96</td>
<td>28</td>
</tr>
<tr>
<td>100-104</td>
<td>18</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>105-109</td>
<td>18</td>
<td>1</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>110-114</td>
<td>07</td>
<td>2</td>
<td>14</td>
<td>28</td>
</tr>
<tr>
<td>115-119</td>
<td>04</td>
<td>3</td>
<td>12.21</td>
<td>36</td>
</tr>
<tr>
<td><strong>N=102</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

$\sum fx^1 = (-52)$  $\sum fx^2 = 288$

Mean = A.M + $\frac{\sum fx^1}{N} \times i$

Mean = $102 + \frac{(-52)}{102} \times 5$

Mean = $102 - \frac{260}{102}$

Mean = $102 - 2.549$

Mean = **99.451**
\[ S.D = i \times \sqrt{\frac{\sum fx^2}{N} - \left( \frac{\sum fx}{N} \right)^2} \]

\[ S.D = 5 \times \sqrt{\frac{288}{102} - \left( \frac{-52}{102} \right)^2} \]

\[ S.D = 5 \times \sqrt{2.823 - (0.509)^2} \]

\[ S.D = 5 \times \sqrt{2.823 - 0.259} \]

\[ S.D = 5 \times \sqrt{2.564} \]

\[ S.D = 5 \times 1.601 \]

\[ S.D = 8.005 \]

**INTERPRETATION:**

It is evidence from Table No. 4. the mean of Managerial Creativity of the more experience Head of high schools of Aurangabad District is 99.451 which come in “Normal Range”.
TABLE NO: 19. The managerial creativity of Less Experience head of high school of Aurangabad District

<table>
<thead>
<tr>
<th>C.I.</th>
<th>f</th>
<th>x₁</th>
<th>fx¹</th>
<th>fx²</th>
</tr>
</thead>
<tbody>
<tr>
<td>85-89</td>
<td>00</td>
<td>-3</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>90-94</td>
<td>03</td>
<td>-2</td>
<td>-6</td>
<td>12</td>
</tr>
<tr>
<td>95-99</td>
<td>03</td>
<td>-1</td>
<td>-3</td>
<td>03</td>
</tr>
<tr>
<td>100-104</td>
<td>04</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>105-109</td>
<td>04</td>
<td>1</td>
<td>04</td>
<td>04</td>
</tr>
<tr>
<td>110-114</td>
<td>02</td>
<td>2</td>
<td>04</td>
<td>08</td>
</tr>
<tr>
<td>115-119</td>
<td>00</td>
<td>3</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>N=16</td>
<td></td>
<td></td>
<td>∑fx¹=(-1)</td>
<td>∑fx²=27</td>
</tr>
</tbody>
</table>

Mean = A.M + \( \frac{\sum fx^1}{N} \) × i

Mean = 102 + \( \frac{(-1)}{16} \) × 5

Mean = 102 - \( \frac{5}{16} \)

Mean = 102 – 0.312

Mean = 101.68
\[
S.D = i \times \sqrt{\frac{\sum fx^2}{N} - \left( \frac{\sum fx}{N} \right)^2}
\]

\[
S.D = 5 \times \sqrt{\frac{27}{16} - \left( \frac{-1}{16} \right)^2}
\]

\[
S.D = 5 \times \sqrt{1.687 - (0.062)^2}
\]

\[
S.D = 5 \times \sqrt{1.687 - 0.003}
\]

\[
S.D = 5 \times 1.684
\]

\[
S.D = 5 \times 1.297
\]

**S.D = 6.485**

**INTERPRETATION:**

It is evidence from Table No. 4. the mean of Managerial Creativity of Less experience Head of High schools of Aurangabad District is 101.68 which come in "Normal range".
TABLE NO: 20. Showing C.R of Less and More Experience head High School of Aurangabad District.

<table>
<thead>
<tr>
<th>Less Experience Head of High Schools</th>
<th>More Experience Head of High Schools</th>
<th>Critical Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean (M₁)</td>
<td>Total (N₁)</td>
<td>S.D. (σ₁)</td>
</tr>
<tr>
<td>101.687</td>
<td>16</td>
<td>6.485</td>
</tr>
</tbody>
</table>

C.R. = \( \frac{M₁ - M₂}{SEM} \)

\[ SEM = \sqrt{\frac{σ₁^2}{N₁} + \frac{σ₂^2}{N₂}} \]

\[ SEM = \sqrt{\frac{(6.485)^2}{16} + \frac{(8.005)^2}{102}} \]

\[ SEM = \sqrt{\frac{42.055 + 64.080}{16 + 102}} \]

\[ SEM = \sqrt{\frac{2.628 + 0.628}{16 + 102}} \]

\[ SEM = \sqrt{3.256} \]

\[ SEM = 1.804 \]
C.R. = \frac{M_1 - M_2}{SEM}

C.R. = \frac{101.687 - 99.451}{1.804}

C.R. = \frac{2.236}{1.804}

C.R. = 1.239

**INTERPRETATION:**

Since C.R. is 1.239 is not significant at 0.05 level. Hence, there is no significant difference between the Managerial Creativity of Less and More experience Head of High Schools of Aurangabad District.