CHAPTER X

ACADEMIC ACHIEVEMENT DIFFERENTIALS
CHAPTER – X

ACADEMIC ACHIEVEMENT DIFFERENTIALS

In this chapter the researcher has studied and discussed the differentials between the children having learning disabilities (LD) and normal children (NC) on academic achievement (MARKS) with the help of mean scores, t-values and graphical representations.

The following hypothesis with its sub-parts has been discussed in this chapter:-

10: There would be no significant differences on academic achievement.

10 (a): There would be no significant differences on academic achievement between learning disabled children (LD) and normal children (NC) across the levels of intelligence.

10 (b): There would be no significant differences on academic achievement among learning disabled children (LD) and among normal children (NC) across the levels of intelligence.

10 (c): There would be no significant differences on academic achievement among learning disabled children (LD) and among normal children (NC) at the same level of intelligence.

10 (d): There would be no significant gender differentials on academic achievement.

HYPOTHESIS – 10 (a): There would be no significant differences on academic achievement between learning disabled children (LD) and normal children (NC) across the levels of intelligence.
RESULTS

Table 10.10.1.1
Means; standard deviations; and t-value on Academic Achievement (MARKS)
for LD and NC (N_{LD} = 98 & N_{NC} = 98; df = 194)

<table>
<thead>
<tr>
<th>Category</th>
<th>M_{LD}</th>
<th>M_{NC}</th>
<th>SD_{LD}</th>
<th>SD_{NC}</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>54.41</td>
<td>64.71</td>
<td>13.09</td>
<td>13.89</td>
<td>5.338</td>
<td>0.01 level</td>
</tr>
</tbody>
</table>

Table 10.10.1.1 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the entire sample of children having learning disabilities (N_{LD}=98) and the entire sample of normal children (N_{NC}=98). Table shows that the mean score of NC (M_{NC}) is 64.71 and that of LD (M_{LD}) is 54.41 on academic achievement (MARKS). The standard deviation value for LD (SD_{LD}) is 13.09 and the standard deviation value for NC (SD_{NC}) is 13.89. The t-value is 5.338 (df=194).
Table 10.10.1.2
Means; standard deviations and t-values on Academic Achievement (MARKS) for average intelligent LD and NC (LDAI = 46 & NCAI = 46; df = 90)

<table>
<thead>
<tr>
<th></th>
<th>MLD-AI</th>
<th>MNC-AI</th>
<th>SDLD-AI</th>
<th>SDNC-AI</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>50.75</td>
<td>60.72</td>
<td>11.17</td>
<td>12.95</td>
<td>3.948</td>
<td>0.01 level</td>
</tr>
</tbody>
</table>

Figure 10.10.1.2
Means on Academic Achievement (MARKS) for average intelligent LD and NC (LDAI = 46 & NCAI = 46; df = 90)

Table 10.10.1.2 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the average intelligent children having learning disabilities (N_{LD-AI}=46) and the average intelligent normal children (N_{NC-AI}=46). Table shows that the mean score of NC (M_{NC-AI}) is 60.72 and that of average intelligent LD (M_{LD-AI}) is 50.75 on academic achievement (MARKS). The standard deviation value for average intelligent LD (SD_{LD-AI}) is 11.17 and the standard deviation value for average intelligent NC (SD_{NC-AI}) is 12.95. The t-value is 3.948 (df=90).
Table 10.10.1.3
Means; standard deviations and t-values on Academic Achievement (MARKS) for above average intelligent LD and NC (LD_{AAI} = 33 & NC_{AAI} = 33; df = 64)

<table>
<thead>
<tr>
<th>Category</th>
<th>M_{LD_{AAI}}</th>
<th>M_{NC_{AAI}}</th>
<th>SD_{LD_{AAI}}</th>
<th>SD_{NC_{AAI}}</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>56.83</td>
<td>64.70</td>
<td>13.52</td>
<td>12.19</td>
<td>2.485</td>
<td>0.05 level</td>
</tr>
</tbody>
</table>

Figure 10.10.1.3
Means on Academic Achievement (MARKS) for above average intelligent LD and NC (LD_{AAI} = 33 & NC_{AAI} = 33; df = 64)

Table 10.10.1.3 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the above average intelligent children having learning disabilities (N_{LD_{AAI}}=33) and the above average intelligent normal children (N_{NC_{AAI}}=33). Table shows that the mean score of above average intelligent NC (M_{NC_{AAI}}) is 64.70 and that of above average intelligent LD (M_{LD_{AAI}}) is 56.83 on academic achievement (MARKS). The standard deviation value for above average intelligent LD (SD_{LD_{AAI}}) is 13.52 and the standard deviation value for above average intelligent NC (SD_{NC_{AAI}}) is 12.19. The t-value is 2.482 (df=64).
Table 10.10.1.4
Means; standard deviations and t-values on Academic Achievement (MARKS) for high intelligent LD and NC (LD_{hi} = 19 & NC_{hi} = 19; df = 36)

<table>
<thead>
<tr>
<th></th>
<th>M_{LD-hi}</th>
<th>M_{NC-hi}</th>
<th>SD_{LD-hi}</th>
<th>SD_{NC-hi}</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>59.07</td>
<td>74.40</td>
<td>14.81</td>
<td>14.70</td>
<td>3.201</td>
<td>0.01 level</td>
</tr>
</tbody>
</table>

Figure 10.10.1.4
Means on Academic Achievement (MARKS) for high intelligent LD and NC (LD_{hi} = 19 & NC_{hi} = 19; df = 36)

Table 10.10.1.4 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the high intelligent children having learning disabilities (N_{LD-hi}=19) and the high intelligent normal children (N_{NC-hi}=19). Table shows that the mean score of high intelligent NC (M_{NC-hi}) is 74.40 and that of high intelligent LD (M_{LD-hi}) is 59.07 on academic achievement (MARKS). The standard deviation value for high intelligent LD (SD_{LD-hi}) is 14.81 and the standard deviation value for high intelligent NC (SD_{NC-hi}) is 14.70. The t-value is 3.201 (df=36).
HYPOTHESIS – 10 (b): *There would be no significant differences on academic achievement among learning disabled children (LD) and among normal children (NC) across the levels of intelligence.*

RESULTS

Table 10.10.2.1

Means; standard deviations and t-values on Academic Achievement (MARKS) for $LDA_1 = 46$ & $LDA_{a1} = 33$ (df = 77)

<table>
<thead>
<tr>
<th>Category</th>
<th>M$_{LDA_1}$</th>
<th>M$<em>{LDA</em>{a1}}$</th>
<th>SD$_{LDA_1}$</th>
<th>SD$<em>{LDA</em>{a1}}$</th>
<th>t</th>
<th>Significant at 0.05 level</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>50.75</td>
<td>56.83</td>
<td>11.17</td>
<td>13.52</td>
<td>2.183</td>
<td><strong>2</strong></td>
</tr>
</tbody>
</table>

Figure 10.10.2.1

Means on Academic Achievement (MARKS) for $LDA_1 = 46$ & $LDA_{a1} = 33$ (df = 77)

Table 10.10.2.1 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the average intelligent children having learning disabilities ($N_{LD-A1}=46$) and the above average intelligent children having learning disabilities ($N_{LD-AAI}=33$). Table shows that the mean score of average intelligent LD
(M\textsubscript{LD-AL}) is 50.75 and that of above average intelligent LD (M\textsubscript{LD-AAI}) is 56.83 on academic achievement (MARKS). The standard deviation value for average intelligent LD (SD\textsubscript{LD-AL}) is 11.17 and the standard deviation value for above average intelligent LD (SD\textsubscript{LD-AAI}) is 13.52. The t-value is 2.183 (df=77).

Table 10.10.2.2
Means; standard deviations and t-values on Academic Achievement (MARKS) for LD\textsubscript{AI} = 46 & LD\textsubscript{II} = 19 (df = 63)

<table>
<thead>
<tr>
<th>Category</th>
<th>M\textsubscript{LD-AL}</th>
<th>M\textsubscript{LD-II}</th>
<th>SD\textsubscript{LD-AL}</th>
<th>SD\textsubscript{LD-II}</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>50.75</td>
<td>59.07</td>
<td>11.17</td>
<td>14.81</td>
<td>2.476</td>
<td>0.05 level</td>
</tr>
</tbody>
</table>

Figure 10.10.2.2
Means on Academic Achievement (MARKS) for LD\textsubscript{AI} = 46 & LD\textsubscript{II} = 19 (df = 63)

Table 10.10.2.2 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the average intelligent children having learning disabilities (N\textsubscript{LD-AL}=46) and the high intelligent children having learning disabilities.
Table 10.10.2.3

Means; standard deviations and t-values on Academic Achievement (MARKS) for LDAAI = 33 & LDHI = 19 (df = 50)

<table>
<thead>
<tr>
<th>Category</th>
<th>MLD-AAI</th>
<th>MLD-HI</th>
<th>SDLD-AAI</th>
<th>SDLD-HI</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>56.83</td>
<td>59.07</td>
<td>13.52</td>
<td>14.81</td>
<td>0.556</td>
<td>NS</td>
</tr>
</tbody>
</table>

Table 10.10.2.3 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the above average intelligent children having
learning disabilities ($N_{LD,AAI}=33$) and the high intelligent children having learning disabilities ($N_{LD,HI}=19$). Table shows that the mean score of above average intelligent LD ($M_{LD,AAI}$) is 56.83 and that of high intelligent LD ($M_{LD,HI}$) is 59.07 on academic achievement (MARKS). The standard deviation value for above average intelligent LD ($SD_{LD,AAI}$) is 13.52 and the standard deviation value for high intelligent LD ($SD_{LD,HI}$) is 14.81. The t-value is 0.556 ($df=50$).

Table 10.10.2.4
Means; standard deviations and t-values on Academic Achievement (MARKS) for $NC_{AI}=46$ & $NC_{AAI}=33$ ($df=77$)

<table>
<thead>
<tr>
<th>MARKS</th>
<th>$M_{NC, AI}$</th>
<th>$M_{NC, AAI}$</th>
<th>$SD_{NC, AI}$</th>
<th>$SD_{NC, AAI}$</th>
<th>$t$</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>60.72</td>
<td>64.703</td>
<td>12.95</td>
<td>12.19</td>
<td>1.381</td>
<td>NS</td>
</tr>
</tbody>
</table>

Figure 10.10.2.4
Means on Academic Achievement (MARKS) for $NC_{AI}=46$ & $NC_{AAI}=33$ ($df=77$)
Table 10.10.2.4 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the average intelligent normal children ($N_{NC-ai}=46$) and the above average intelligent normal children ($N_{NC-AAI}=33$). Table shows that the mean score of average intelligent NC ($M_{NC-ai}$) is 60.72 and that of above average intelligent NC ($M_{NC-AAI}$) is 64.70 on academic achievement (MARKS). The standard deviation value for average intelligent NC ($SD_{NC-ai}$) is 12.95 and the standard deviation value for above average intelligent NC ($SD_{NC-AAI}$) is 12.19. The t-value is 1.381 (df=77).

Table 10.10.2.5
Means; standard deviations and t-values on Academic Achievement (MARKS)
for $NC_{AI} = 46$ & $NC_{HI} = 19$ (df =63)

<table>
<thead>
<tr>
<th>Category</th>
<th>$M_{NC_{AI}}$</th>
<th>$M_{NC_{HI}}$</th>
<th>$SD_{NC_{AI}}$</th>
<th>$SD_{NC_{HI}}$</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>60.72</td>
<td>74.40</td>
<td>12.95</td>
<td>14.70</td>
<td>3.723</td>
<td>0.01 level</td>
</tr>
</tbody>
</table>

Figure 10.10.2.5
Means on Academic Achievement (MARKS) for $NC_{AI} = 46$ & $NC_{HI} = 19$ (df =63)
Table 10.10.2.5 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the average intelligent normal children (N_{NC-AI}=46) and the high intelligent normal children (N_{NC-HI}=19). Table shows that the mean score of average intelligent NC (M_{NC-AI}) is 60.72 and that of high intelligent NC (M_{NC-HI}) is 74.40 on academic achievement (MARKS). The standard deviation value for average intelligent NC (SD_{NC-AI}) is 12.95 and the standard deviation value for high intelligent NC (SD_{NC-HI}) is 14.70. The t-value is 3.723 (df=63).

Table 10.10.2.6
Means; standard deviation and t-values on Academic Achievement (MARKS)
for NC_{AII} = 33 & NC_{HI} = 19 (df = 50)

<table>
<thead>
<tr>
<th>Category</th>
<th>M_{NC-AI}</th>
<th>M_{NC-HI}</th>
<th>SD_{NC-AI}</th>
<th>SD_{NC-HI}</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>64.70</td>
<td>74.40</td>
<td>12.19</td>
<td>14.70</td>
<td>2.561</td>
<td>0.05 level</td>
</tr>
</tbody>
</table>

Figure 10.10.2.6
Means on Academic Achievement (MARKS) for NC_{AII} = 33 & NC_{HI} = 19 (df = 50)
Table 10.10.2.6 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the above average intelligent normal children (N_{NC-AAI}=33) and the high intelligent normal children (N_{NC-HI}=19). Table shows that the mean score of above average intelligent NC (M_{NC-AAI}) is 64.70 and that of high intelligent NC (M_{NC-HI}) is 74.40 on academic achievement (MARKS). The standard deviation value for above average intelligent NC (SD_{NC-AAI}) is 12.19 and the standard deviation value for high intelligent NC (SD_{NC-HI}) is 14.70. The t-value is 2.561 (df=50).

**HYPOTHESIS – 10 (e): There would be no significant differences on academic achievement among learning disabled children (LD) and among normal children (NC) at the same level of intelligence.**

**RESULTS**

**Table 10.10.3.1**
MARKS-wise distribution of LD and NC (AI=46; AAI=33 & HI=19)

<table>
<thead>
<tr>
<th></th>
<th>1st Div</th>
<th></th>
<th>2nd Div</th>
<th></th>
<th>3rd Div</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LD</td>
<td>NC</td>
<td>LD</td>
<td>NC</td>
<td>LD</td>
</tr>
<tr>
<td>AI</td>
<td>10</td>
<td>22</td>
<td>12</td>
<td>13</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>(21.74%)</td>
<td>(47.83%)</td>
<td>(26.09%)</td>
<td>(28.26%)</td>
<td>(52.17%)</td>
</tr>
<tr>
<td>AAI</td>
<td>12</td>
<td>20</td>
<td>10</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>(36.36%)</td>
<td>(60.61%)</td>
<td>(30.30%)</td>
<td>(36.36%)</td>
<td>(33.33%)</td>
</tr>
<tr>
<td>HI</td>
<td>8</td>
<td>15</td>
<td>6</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>(42.11%)</td>
<td>(78.95%)</td>
<td>(31.58%)</td>
<td>(10.53%)</td>
<td>(26.32%)</td>
</tr>
</tbody>
</table>
Figure 10.10.3.1
Category-wise observed frequency distribution of Marks for $LD_{AI}, LD_{AAI}$ and $LD_{III}$

Figure 10.10.3.2
Category-wise observed frequency distribution of Marks for $NC_{AI}, NC_{AAI}$ and $NC_{III}$
Table 10.10.3.1 gives the MARKS – wise distribution in the categories of 1st, 2nd & 3rd divisions of average intelligent LD (LD_{AI}=46), above average intelligent LD (LD_{AAI}=33) & high intelligent LD (LD_{HI}=19). Table also gives the MARKS – wise distribution in the categories of 1st, 2nd & 3rd divisions of average intelligent NC (NC_{AI}=46), above average intelligent NC (NC_{AAI}=33) & high intelligent NC (NC_{HI}=19).

The table shows that in the average intelligent LD category (LD_{AI}) there are 10 (21.74%) children having 1st division, 12 (26.09%) children having 2nd division and 24 (52.17%) children having 3rd division. In the above average intelligent LD category (LD_{AAI}) there are 12 (36.36%) children having 1st division, 10 (30.30%) children having 2nd division and 11 (33.33%) children having 3rd division. In the high intelligent LD category (LD_{HI}) there are 8 (42.11%) children having 1st division, 6 (31.58%) children having 2nd division and 5 (26.32%) children having 3rd division.

Table also shows that in the average intelligent NC category (NC_{AI}) there are 22 (47.83%) children having 1st division, 13 (28.26%) children having 2nd division and 11 (23.91%) children having 3rd division. In the above average intelligent NC category (NC_{AAI}) there are 20 (60.61%) children having 1st division, 12 (36.36%) children having 2nd division and 1 (3.03%) children having 3rd division. In the high intelligent NC category (NC_{HI}) there are 15 (78.95%) children having 1st division, 2 (10.53%) children having 2nd division and 2 (10.53%) children having 3rd division.

**HYPOTHESIS – 10 (d): There would be no significant gender differentials on academic achievement.**

**RESULTS**

Table 10.10.4.1

Means; standard deviations and t-values on Academic Achievement (MARKS) for Males (N =110) and Females (N =86); df = 194

<table>
<thead>
<tr>
<th></th>
<th>M\text{M}</th>
<th>M\text{F}</th>
<th>SD\text{M}</th>
<th>SD\text{F}</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>56.58</td>
<td>63.37</td>
<td>13.89</td>
<td>14.26</td>
<td>3.353</td>
<td>0.01 level</td>
</tr>
</tbody>
</table>
Table 10.10.4.1 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the entire sample of males (N_M = 110) and the entire sample of females (N_F = 86). Table shows that the mean score of males (M_M) is 56.58 and that of females (M_F) is 63.37 on academic achievement (MARKS). The standard deviation value for males (SD_M) is 13.89 and the standard deviation value for females (SD_F) is 14.26. The t-value is 3.353 (df = 194).

Table 10.10.4.2
Means; standard deviations and t-values on Academic Achievement (MARKS) for LD Males (N = 55) and LD Females (N = 43); df = 96

<table>
<thead>
<tr>
<th>Category</th>
<th>M_LD,M</th>
<th>M_LD,F</th>
<th>SD_LD,M</th>
<th>SD_LD,F</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>50.53</td>
<td>59.38</td>
<td>12.10</td>
<td>12.75</td>
<td>3.506</td>
<td>0.01 level</td>
</tr>
</tbody>
</table>
Table 10.10.4.2 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the LD males (N_{LD-M}=55) and the LD females (N_{LD-F}=43). Table shows that the mean score of LD males (M_{LD-M}) is 50.53 and that of LD females (M_{LD-F}) is 59.38 on academic achievement (MARKS). The standard deviation value for LD males (SD_{LD-M}) is 12.10 and the standard deviation value for LD females (SD_{LD-F}) is 12.75. The t-value is 3.506 (df=96).

Table 10.10.4.3
Means; standard deviations and t-values on Academic Achievement (MARKS) for NC Males (N =55) and NC Females (N =43); df = 96

<table>
<thead>
<tr>
<th>Category</th>
<th>M_{NC-M}</th>
<th>M_{NC-F}</th>
<th>SD_{NC-M}</th>
<th>SD_{NC-F}</th>
<th>t</th>
<th>Significant at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARKS</td>
<td>62.64</td>
<td>67.36</td>
<td>12.97</td>
<td>14.71</td>
<td>1.686</td>
<td>NS</td>
</tr>
</tbody>
</table>

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Table 10.10.4.3 gives the mean scores, standard deviations and t-value on academic achievement (MARKS) for the NC males (N_{NC-M} = 55) and the NC females (N_{NC-F} = 43). The table shows that the mean score of NC males (M_{NC-M}) is 62.64 and that of NC females (M_{NC-F}) is 67.36 on academic achievement (MARKS). The standard deviation value for NC males (SD_{NC-M}) is 12.97 and the standard deviation value for NC females (SD_{NC-F}) is 14.71. The t-value is 1.686 (df=96).

**DISCUSSION OF RESULTS**

- **Hypothesis 10 (a)**

  Tables 10.10.1.1 to 10.10.1.4 give the mean differentials between children having learning disabilities (LD) and normal children (NC) on academic achievement for the entire sample of LD (N_{LD} = 98) and the entire sample of NC (N_{NC} = 98) and also for LD and NC across the levels of intelligence (LD_{AI}, LD_{AAI}, LD_{AI}, & LD_{II} and NC_{HI}).
Table 10.10.1.1 gives the mean differential (t-value) between NC (N_{nc}=98) and LD (N_{ld}=98) on academic achievement (MARKS). The table shows that t-value is significant at 0.01 level of confidence indicating that the mean score of LD is significantly lower as compared to the mean score of NC on MARKS.

Table 10.10.1.2 gives the mean differential (t-value) between average intelligent NC (NCA_{ai}=46) and average intelligent LD (LDA_{ai}=46) on academic achievement (MARKS). The table shows that t-value is significant at 0.01 level of confidence indicating that the mean score of LDA_{ai} is significantly lower as compared to the mean score of NCA_{ai} on academic achievement (MARKS).

Table 10.10.1.3 gives the mean differential (t-value) between above average intelligent NC (NCA_{ai}=33) and above average intelligent LD (LDA_{ai}=33) on academic achievement (MARKS). The table shows that t-value is significant at 0.05 level of confidence indicating that the mean score of LDA_{ai} is significantly lower as compared to the mean score of NCA_{ai} on academic achievement (MARKS).

Table 10.10.1.4 gives the mean differential (t-value) between high intelligent NC (NCA_{hi}=19) and high intelligent LD (LD_{hi}=19) on academic achievement (MARKS). The table shows that t-value is significant at 0.01 level of confidence indicating that the mean score of LD_{hi} is significantly lower as compared to the mean score of NCA_{hi} on academic achievement (MARKS).

- Hypothesis 10 (b)

Tables 10.10.2.1 to 10.10.2.6 give the mean differentials among children having learning disabilities (LD) and among normal children (NC) on academic achievement across the levels of intelligence (LDA_{ai} and LDA_{ai}, LDA_{ai} and LD_{hi}, LDA_{ai} and LD_{hi}, NCA_{ai} and NCA_{ai}, NCA_{ai} and NCA_{ai} and NCA_{ai}).

Table 10.10.2.1 gives the mean differential (t-value) between LDA_{ai} and LDA_{ai} on academic achievement (MARKS). The table shows that t-value is significant at 0.05 level of confidence indicating that the mean score of LDA_{ai} is significantly lower as compared to the mean score of LDA_{ai} on academic achievement (MARKS).

Table 10.10.2.2 gives the mean differential (t-value) between LD_{ai} and LD_{hi} on academic achievement (MARKS). The table shows that t-value is significant at
0.05 level of confidence indicating that the mean score of LD_{AI} is significantly lower as compared to the mean score of LD_{HI} on academic achievement (MARKS).

Table 10.10.2.3 gives the mean differential (t-value) between LD_{AAI} and LD_{HI} on academic achievement (MARKS). The table shows that t-value is insignificant which indicates that LD_{AAI} and LD_{HI} do not differ significantly on academic achievement (MARKS).

Table 10.10.2.4 gives the mean differential (t-value) between NC_{AI} and NC_{AAI} on academic achievement (MARKS). The table shows that t-value is insignificant which indicates that NC_{AI} and NC_{AAI} do not differ significantly on academic achievement (MARKS).

Table 10.10.2.5 gives the mean differential (t-value) between NC_{AI} and NC_{HI} on academic achievement (MARKS). The table shows that t-value is significant at 0.01 level of confidence indicating that the mean score of NC_{AI} is significantly lower as compared to the mean score of NC_{HI} on academic achievement (MARKS).

Table 10.10.2.6 gives the mean differential (t-value) between NC_{AAI} and NC_{HI} on academic achievement (MARKS). The table shows that t-value is significant at 0.05 level of confidence which indicates that the mean score of NC_{AAI} is significantly lower as compared to the mean score of NC_{HI} on academic achievement (MARKS).

**Hypothesis 10 (c)**

Table 10.10.3.1 gives the MARKS – wise distribution in the categories of 1\textsuperscript{st}, 2\textsuperscript{nd} & 3\textsuperscript{rd} divisions of average intelligent NC (NC_{AI}=46), above average intelligent NC (NC_{AAI}=33) & high intelligent NC (NC_{HI}=19) along with the MARKS – wise distribution of average intelligent LD (LD_{AI}=46), above average intelligent LD (LD_{AAI}=33) & high intelligent LD (LD_{HI}=19). The comparison of observed frequencies between LD and NC reveals that the percentage of LD in the category of 1\textsuperscript{st} division is much low as compared to the NC across the levels of intelligence (i.e., AI, AAI & HI). On the other hand the percentage of LD in the category of 3\textsuperscript{rd} division is much high as compared to NC across the levels of intelligence (i.e., AI, AAI & HI).
Hypothesis 10 (d)

Tables 10.10.4.1 to 10.10.4.3 give the gender mean differentials on academic achievement between the entire sample of males ($N_M=110$) and females ($N_F=86$), between LD males ($LD_M=55$) and LD females ($LD_F=43$) and between NC males ($NC_M=55$) and NC females ($NC_F=43$).

Table 10.10.4.1 gives the mean differential (t-value) between the entire sample of males ($N_M=110$) and the entire sample of females ($N_F=86$) on academic achievement (MARKS). The table shows that t-value is significant at 0.01 level of confidence which indicates that the males have significantly lower mean on academic achievement (MARKS) as compared to the females.

Table 10.10.4.2 gives the mean differential (t-value) between LD males and LD females on academic achievement (MARKS). The table shows that t-value is significant at 0.01 level of confidence indicating that the mean score of LD males is significantly lower as compared to the mean score of LD females on academic achievement (MARKS).

Table 10.10.4.3 gives the mean differential (t-value) between NC males and NC females on academic achievement (MARKS). The table shows that t-value is insignificant which indicates that NC males and NC females do not differ significantly on academic achievement (MARKS).

From the above discussion, it may be summed up that the HYPOTHESIS – 10 stating “there would be no significant differences on academic achievement” is rejected. Alternatively it may be stated that there exist significant differentials on academic achievement among children having learning disabilities (LD) and normal children (NC) across the levels of intelligence. Also, significant differentials exist among LD and among NC at the same level of intelligence. Significant gender differentials also exist on academic achievement as has been mentioned and discussed above (From Tables 10.10.1.1 to 10.10.1.4, 10.10.2.1 to 10.10.2.6, 10.10.3.1 and 10.10.4.1 to 10.10.4.3).