CHAPTER-V

DISCUSSION OF RESULTS, FINDINGS, EDUCATIONAL IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

The present study attempts to find out and focus upon mathematics achievement of eighth grade students of different caste, sex and habitat groups in Devipatan Division-Gonda (U.P.) This chapter attempts to discuss the results based on the analysis of data, findings, educational implications and suggestions for further research. The present chapter has been presented under the following headings:

5.1 Discussion of Results
5.2. Findings of the Study
5.3. Educational Implications
5.4. Suggestions for Further Research

5.1. DISCUSSION OF RESULTS

The results related to mathematics achievement of different caste, sex and habitat groups have been discussed according to the following schemes:

5.1.1 Discussion of result related to overall achievement in mathematics among boys and girls of three caste groups viz. General, OBC and SC.

5.1.2. Discussion of results related to overall achievement in mathematics among boys and girls of three habitats viz. urban, sub-urban and rural.

5.1.3. Discussion of results related to achievement in mathematics among boys and girls of three castes viz. General, OBC and SC in urban areas.

5.1.4. Discussion of results related to achievement in mathematics among boys and girls of three castes viz. General, OBC and SC in sub-urban areas.

5.1.5. Discussion of results related to achievement in mathematics among boys and girls of three castes viz. General, OBC and SC in rural areas.
5.1.1. Discussion of results related to overall achievement in mathematics among boys and girls of three castes groups *viz.* General, OBC and SC

First of all, the results related to overall achievement in mathematics among boys and girls (of three caste groups-General, OBC and SC) have been presented and thereafter discussion of these results have carried out as follows:

**RESULTS**

(A) **BETWEEN BOYS AND GIRLS OF THREE CASTE GROUPS**

As per table 4.02 it was observed that there is significant difference between boys and girls (of the three castes groups) with regard to overall achievement in mathematics. As per table 4.01 it was interpreted that girls seem to be superior to boys among all the three caste groups in mathematics achievement. Consequently the main hypothesis (1.1) of no significant difference among boys and girls (of all the three caste groups) in overall mathematics achievement has been rejected.

(B) **AMONG THREE CASTE GROUPS**

As per table 4.02 it was observed that there is significant difference among three caste groups with respect to overall achievement in mathematics. As per table 4.01 it was concluded that General students seem to be the best among all the three caste groups in mathematics achievement. Thus the main hypothesis (numbered 1.2) that there is no significant difference in overall achievement in mathematics among the three caste groups has been rejected.

(a) **General and OBC**

On the basis of Table 4.03 it was derived that there is significant difference between General and OBC groups with regard to the overall achievement in mathematics. It was concluded that General students seem to be better than OBC students in achievement in mathematics. Thus the sub-
hypothesis (numbered 1.2.a) that there is no significant difference between General and OBC groups in mathematics achievement has been rejected.

(b) General and SC

On the basis of Table 4.04 it was interpreted that there is significant difference between General and SC groups with regard to the overall achievement in mathematics. It was concluded that General students appear to be better achiever in comparison to SC students in overall achievement in mathematics. Thus the sub-hypothesis 1.2 b has been rejected.

(c) OBC and SC

According to Table 4.05 it was noted that OBC and SC groups differ significantly with regard to overall mathematics achievement. It was interpreted that OBC students seem to be superior to SC students in overall mathematics achievement. Consequently the sub-hypothesis (numbered 1.2c) of no significant difference between OBC and SC groups in overall achievement mathematics has been rejected.

(C) AMONG SEX BY CASTE GROUPS

As per Table 4.02 it was observed that there is no significant difference among boys and girls by the three caste groups with respect to achievement in mathematics. Consequently the main hypothesis (numbered 1.3) of no significant difference among boys and girls of three caste groups has been accepted.

(a) General-boys and OBC-boys

According to Table 4.06 it was noted that there is significant difference between General-boys and OBC-boys with regard to the achievement in mathematics. It was interpreted that General-boys seem to be superior to OBC-boys in mathematics achievement. Consequently the sub-hypothesis (numbered 1.3a) of no significant difference between General-boys and General-girls in mathematics achievement has been rejected.
(b) General-boys and SC-boys

On the basis of Table 4.07 it was derived that there is significant difference in mathematics achievement between General-boys and SC-boys. It was concluded that General-boys seem to be better than SC-boys with respect to achievement in mathematics. Consequently the sub-hypothesis (numbered 1.3b) of no significant difference between General-boys and SC-boys in mathematics achievement has been rejected.

(c) OBC-boys and SC-boys

As per Table 4.08 it was noted that OBC and SC groups differ significantly with regard to mathematics achievement. It was interpreted that OBC-boys seem to be superior to SC-boys in mathematics achievement. Consequently the sub-hypothesis (numbered 1.3c) of no significant difference between OBC-boys and SC-boys in mathematics achievement has been rejected.

(d) General-girls and OBC-girls

On the basis of Table 4.09 it was derived that there is no significant difference between General-girls and OBC-girls in mathematics achievement. It was concluded that General-girls do not seem to be better than OBC-girls in achievement. Thus the sub-hypothesis (numbered 1.3d) that there is no significant difference between General-girls and OBC-girls in mathematics achievement has been accepted.

(e) General-girls and SC-girls

According and Table 4.10 it was interpreted that there is significant difference in mathematics achievement of General-girls and SC-girls. It was concluded that General-girls seem to be superior in comparison to SC-girls in mathematics achievement. Thus the sub-hypothesis 1.3 e has been rejected.
(f) **OBC-girls and SC-girls**

As per Table 4.11 it was derived that there is significant difference between OBC-girls and SC-girls with regard to achievement in mathematics. It was said that OBC-girls appear to be better than SC-girls in mathematics achievement. Consequently the sub-hypothesis (numbered 1.3f) that there is no significant difference between OBC-girls and SC-girls on achievement in mathematics has been rejected.

(g) **General-boys and General-girls**

According to Table 4.12 it was noted that General-boys and General-girls do not differ significantly with regard to mathematics achievement. It was concluded that General-girls do not appear to be better in comparison to General-boys on achievement in mathematics. Thus the sub-hypothesis 1.3g of no significant difference between General-boys and General-girls in mathematics achievement has been accepted.

(h) **OBC-boys and OBC-girls**

On the basis of Table 4.13 it was noted that there is significant difference between OBC-boys and OBC-girls with regard to achievement in mathematics. It was said that OBC-girls appear to be better than OBC-boys in mathematics achievement. Consequently the sub-hypothesis (numbered 1.3b) that there is no significant difference between OBC-boys and OBC-girls in mathematics achievement has been rejected.

(i) **SC-boys and SC-girls**

As per Table 4.14 it was noted that there is no significant difference between SC-boys and SC-girls in mathematics achievement. It was concluded that SC-girls do not seem to be better than SC-boys on achievement in mathematics. Thus the sub-hypothesis (numbered 1.3 i) that there is significant difference between SC-boys and SC-girls in mathematics achievement has been accepted.
DISCUSSION

Form the above results it can be stated that the girl-students (belonging to the three caste groups viz. General, OBC and SC) were found to be significantly better than the boys of the said caste groups with respect to overall achievement in mathematics. The mean value of girl-students was found to be greater than boys. The reason may be that: (1) Increasing encouragement and support form parents and teachers were found to be present and influenced girl’s academic achievement and participation; (2) Sense of competence and academic participation were observed to be important factors associated with the achievement of girl-students. (3) Policies aiming to improve the achievement and participation level of girls in Mathematics/ Science subjects were expected to be determining factors in favour of girls to excel in. The result of this study has been supported by Abraham and Bhasin (1974), Gupta (1988), Kimball (1989), Harikrishnan (1992) and Saeed, Bashir, Gondal and Bushra (2005).

General caste students were found to be the best among the three caste groups. SC-students were found to be the lowest achiever in mathematics achievement. OBC-students were better achiever than SC-students but lesser than General-students in mathematics. Similarly General-boys were found to be better achiever than SC-boys in mathematics and furthermore, the General-girls were observed to be better achiever than SC-girls in mathematics. The mean value of General students and the boys of General caste was found to be greater than SC-students and the boys of SC-student. The reason may be that: (1) Many of the General caste parents were found to be richer in comparison to the rest of the caste groups; (2) The Socio-cultural and educational background of General caste has been observed to be higher in comparison to other caste groups; (3) General-caste families are educated and provide more facilities to their children. The result of this study has been supported by Mathews (1984) and Singh (1990).
The results also indicated that there was no significant difference between General-girls and OBC-girls in mathematics achievement. But General-girls achieved more in comparison to OBC-girls in mathematics (from Table 4.09). It was also noted that General-girls do not differ significantly from General-boys, however, General-girls scored higher in mathematics (from Table 4.12). OBC-girls were significantly better achiever than OBC-boys in mathematics achievement (from Table 4.13) whereas SC-girls were not significantly better than SC-boys in mathematics achievement (from Table 4.14).

Thus (according to table 4.01) regarding achievement in mathematics as per sex by caste, the highest achiever group was of General-girls followed by OBC-girls, General-boys, OBC-boys, SC-girls and at last, the lowest achiever-SC boys. The reason may be that the socio-cultural and educational background of General caste families have been observed to be higher in comparison to other caste groups. Mc Nemar (1942) found that higher social classes were superior in intelligence to those of the lower classes

5.1.2. Discussion of results related to overall achievement in mathematics among boys and girls of three habitat groups *viz.* urban, sub-urban and rural

First of all, the results related to overall achievement in mathematics among boys and girls (of three habitat groups – urban, sub-urban and rural) have been presented and thereafter discussion of these results have been carried out as follows :
RESULTS

(A) BETWEEN BOYS AND GIRLS OF THREE HABITAT GROUPS

As per Table 4.16 it was observed that there is significant difference between boys and girls (of the three habitat groups) with regard to overall achievement in mathematics. As per table 4.15, it was interpreted that girls seem to be superior to boys in mathematics achievement in all the three habitats. Consequently the main hypothesis (2.1) of no significant difference among boys and girls of the three habitat groups in overall mathematics achievement has been rejected.

(B) AMONG THREE HABITAT GROUPS

As per Table 4.16 it was observed that there is significant difference among three habitat groups with respect to overall achievement in mathematics. As per Table 4.15 it was concluded that urban students seem to be the best among all the three habitat groups in mathematics achievement. Thus the main hypothesis (numbered 2.2) that there is no significant difference among three habitat groups in overall achievement in mathematics has been rejected.

(a) Urban and sub-urban:

On the basis of Table 4.17 it was derived that there is significant difference between urban and sub-urban groups with regard to the overall achievement in mathematics. It was concluded that urban students seem to be better than sub-urban students in achievement in mathematics. Thus the sub-hypothesis (numbered 2.2a) that there is no significant difference between urban and sub-urban groups in mathematics achievement has been rejected.

(b) Sub-urban and rural:

On the basis of Table-4.18 it was interpreted that there is significant difference between sub-urban and rural-groups with regard to the achievement
in mathematics. It was concluded that sub-urban students appear to be better achiever in comparison to rural students in mathematics achievement. Thus, the sub-hypothesis 2.2b has been rejected.

(c) **Urban and rural:**

According to Table 4.19 it was noted that urban and rural groups differ significantly with regard to mathematics achievement. It was interpreted that urban students seem to be superior to rural students in mathematics achievement. Consequently the sub-hypothesis (numbered 2.2c) of no significant difference in achievement in mathematics between urban and rural groups has been rejected.

(D) **AMONG SEX BY HABITAT GROUPS:**

As per Table 4.16 it was observed that there is significant difference among boys and girls by the three habitat groups with respect to achievement in mathematics. As per Table 4.15 it was interpreted that urban-girls seem to the best achiever whereas the rural-boys were at the bottom with regard to mathematics achievement. Consequently the main hypothesis (numbered 2.3) of no significant difference among boys and girls of the three habitat groups in mathematics achievement has been rejected.

(a) **Urban-boys and sub-urban-boys:**

According to Table 4.20 it was noted that there is no significant difference between urban-boys and sub-urban-boys with regard to the achievement in mathematics. It was interpreted that urban-boys do not seem to be better than sub-urban-boys in mathematics achievement. Consequently the sub-hypothesis (numbered 2.3a) of no significant difference between urban-boys and sub-urban-boys in mathematics achievement has been accepted.
(b) **Sub-urban-boys and rural-boys:**

On the basis of Table 4.21 it was derived that there is significant difference between sub-urban-boys and rural-boys in mathematics achievement. It was concluded that sub-urban-boys seem to be better than rural-boys with respect to achievement in mathematics. Consequently the sub-hypothesis (numbered 2.3b) of no significant difference between sub-urban-boys and rural-boys in mathematics achievement has been rejected.

(c) **Urban-boys and rural-boys:**

As per Table 4.22 it was noted that urban-boys and rural-boys differ significantly with respect to mathematics achievement. It was interpreted that urban-boys seem to be superior to rural-boys in mathematics achievement. Consequently the sub-hypothesis (numbered 2.3c) of no significant difference between urban-boys and rural-boys in mathematics achievement has been rejected.

(d) **Urban-girls and sub-urban-girls:**

On the basis of Table 4.23 it was derived that there is significant difference between urban-girls and sub-urban-girls in mathematics achievement. It was concluded that urban-girls seem to be superior than sub-urban-girls in mathematics achievement. Thus the sub-hypothesis (numbered 2.3d) that there is no significant difference between urban-girls and sub-urban-girls in mathematics achievement has been rejected.

(e) **Sub-urban-girls and rural-girls:**

According to Table 4.24 it was interpreted that there is significant difference in mathematics achievement of sub-urban-girls and rural-girls. It was concluded that sub-urban-girls seem to be superior in comparison to rural-girls in mathematics achievement. Thus the sub-hypothesis 2.3e has been rejected.
(f) **Urban-girls and rural-girls:**

As per Table 4.25 it was interpreted that there is significant difference between urban-girls and rural-girls with regard to achievement in mathematics. It was said that urban-girls appear to be better than rural-girls in mathematics achievement. Consequently the sub-hypothesis (numbered 2.3f) that there is no significant difference in achievement on mathematics has been rejected.

(g) **Urban-boys and urban-girls:**

According to Table 4.26 it was noted that urban-boys and urban-girls do not differ significantly with regard to mathematics achievement. It was concluded that urban-girls do not appear to be better in comparison to urban-boys on achievement in mathematics. Thus the sub-hypothesis 2.3g of no significant difference between urban-boys and urban-girls in mathematics achievement has been accepted.

(h) **Sub-urban-boys and sub-urban-girls:**

On the basis of Table 4.27 it was noted that there is no significant difference between sub-urban-boys and sub-urban-girls with regard to achievement in mathematics. It was concluded that sub-urban-girls do not appear to be better in comparison to sub-urban-boys on achievement in mathematics. Thus the sub-hypothesis (numbered 2.3h) that there is no significant difference between sub-urban-boys and sub-urban-girls in mathematics achievement has been accepted.

(i) **Rural-boys and rural-girls:**

As per Table 4.28 it was noted that there is significant difference between rural-boys and rural-girls in mathematics achievement. It was concluded that rural-girls appear to be better than rural-boys in mathematics achievement. Thus the sub-hypothesis (numbered 2.3i) that there is significant difference between rural-boys and rural-girls in mathematics achievement has been rejected.
DISCUSSION

The present discussion is related to find out and focus upon the achievement of habitat and sex groups in mathematics. From the results, it seems that the girl-students (belonging to the three habitat groups viz. urban, sub-urban and rural) were found to be significantly better than the boys of the same habitats with respect to overall achievement in mathematics. The mean value of girl-students was found to be greater than boys. The reason may be that: increasing encouragement and support from parents and teachers were found to be present and influenced the girl’s academic achievement and participation. (ii) Sense of competence and academic participation were observed to be important factors associated with the achievement of girl-students. (iii) Policies aiming to improve the achievement and participation level of girls in Mathematics / Science subjects were expected to be determining factors in favour of girls to excel. The results of this study has been supported by Abraham and Bhasin (1974), Gupta (1988), Kimball (1998), Hari Krishnan (1992) and Saeed, Bashir, Gondal and Bushra (2005).

Further, urban students were found to be the best among the three habitat groups in mathematics achievement. Rural students were the least achiever in mathematics. The reason may be that urban-students were better equipped with many resources. The result of this study has been supported by Lalithamma (1980), Rao (1983) Koteshwara (1991) and Pallavi (2006).

According to Table 4.15 regarding the achievement in mathematics as per sex by habitat, the highest achiever group was of urban-girls followed by urban-boys, sub-urban-girls, sub-urban-boys, rural-girls and at last, the least achiever-rural-boys. Furthermore, sub-urban-girls were found to be significantly better achiever than rural-girls in mathematics and rural-girls were found to be significantly better achiever than rural-boys in mathematics. The reason may be that the emphasis on girl’s education now-a-days pays more when it comes to urban habitat which is better equipped with many resources.
The result of this study has been supported by Das (1992) that performance of the advantaged children was superior to the disadvantaged children.

In this study it is also reported that there was no significant difference found between urban-boys and sub-urban-boys (Table 4.20), urban-boys and urban-girls (Table 4.26) and sub-urban-boys and sub-urban-girls (Table 4.27) in mathematics achievement. The reason may be that both the sex groups in each habitat showed positive attitude towards mathematics. The result of this study has been supported by Nayar (1971), Patel (1984), Shukla (1984), Kolhe (1985), Baskaran (1991) and Dodendorf (2006). These studies reported that there was no sex difference between achievement level of urban and rural students or urban and rural differences were irrespective of the gender.

5.1.3 Discussion of results related to achievement in mathematics among boys and girls of three castes viz. General, OBC and SC in urban areas

First of all, the results related to achievement in mathematics among boys and girls of three caste groups viz. General, OBC and SC of urban areas have been presented and thereafter discussion of these results have been carried out as follows:

RESULTS

(A) BETWEEN BOYS AND GIRLS (URBAN)

As per Table 4.30 it was observed that there is no significant difference between urban-boys and urban-girls of three caste groups with regard to achievement in mathematics. It was interpreted that urban-girls do not seem to be better than urban-boys among the three caste groups in mathematics achievement. Consequently the main hypothesis 3.1 of no significant difference between urban-boys and urban-girls belonging to the three caste groups in achievement on mathematics has been accepted.
(B) AMONG THREE CASTE GROUPS (URBAN)

As per Table 4.30 it was observed that there is significant difference among three urban caste groups with respect to achievement in mathematics. As per Table 4.29 it was concluded that urban-general students seem to be the best among all the three caste groups of urban habitat in mathematics achievement. Thus the main hypothesis (numbered 3.2) that there is no significant difference in achievement in mathematics among three caste groups of urban habitat has been rejected.

(a) General and OBC (urban):

On the basis of Table 4.31 it was interpreted that there is significant difference between urban-General and urban-OBC students with regard to the achievement in mathematics. It was concluded that urban-General students appear to be better achiever in comparison to urban-OBC students in achievement in mathematics. Thus the sub-hypothesis 3.2a has been rejected.

(b) General and SC (urban):

On the basis of Table 4.32 it was interpreted that there is significant difference between urban-General and urban-SC students with regard to the achievement in mathematics. It was concluded that urban-General students appear to be better achiever in comparison to urban-SC students in mathematics achievement. Thus the sub-hypothesis 3.2b has been rejected.

(c) OBC and SC (urban):

According to Table 4.33 it was noted that urban-OBC and urban-SC groups differ significantly with regard to mathematics achievement. It was interpreted that urban-OBC students seem to be superior to urban-SC students in mathematics achievement. Consequently the sub-hypothesis (numbered 3.2c) of no significant difference on achievement in mathematics between urban-OBC and urban-SC has been rejected.
(C) AMONG SEX BY CASTE GROUP (URBAN)

As per Table 4.30 it was observed that there is no significant difference among boys and girls by the three castes in urban habitat with respect to achievement in mathematics. Consequently the main hypothesis (numbered 3.3) of no significant difference among boys and girls of three caste groups in urban habitat in mathematics achievement has been accepted.

(a) General-boys and OBC-boys (urban):

According to Table 4.34 it was noted that there is significant difference between General-boys and OBC-boys with regard to the achievement in mathematics in urban habitat. It was interpreted that General-boys seem to be superior to OBC-boys in mathematics achievement in urban habitat. Consequently the sub-hypothesis (numbered 3.3a) of no significant difference between General-boys and General-girls in mathematics achievement in urban habitat has been rejected.

(b) General-boys and SC-boys (urban):

On the basis of table 4.35 it was derived that there is significant difference in mathematics achievement between General-boys and SC-boys in urban habitat. It was concluded that General-boys seems to be better than SC-boys with respect to achievement in mathematics in urban habitat. Consequently the sub-hypothesis (numbered 3.3b) of no significant difference between General-boys and SC-boys in mathematics achievement in urban habitat has been rejected.

(c) OBC-boys and SC-boys (urban):

As per table 4.36 it was noted that OBC and SC groups do not differ significantly with regard to mathematics achievement in urban habitat. It was interpreted that OBC-boys do not seem to be superior to SC-boys in mathematics achievement in urban habitat. Consequently the sub-hypothesis (numbered 3.3c) of no significant difference between OBC-boys and SC-boys in mathematics achievement in urban habitat has been accepted.
(d) General girls and OBC-girls (urban):

On the basis of Table 4.37 it was derived that there is no significant difference between General-girls and OBC-girls of urban habitat in mathematics achievement. It was concluded that General-girls do not seem to be better than OBC-girls in achievement in urban habitat. Thus the sub-hypothesis (numbered 3.3d) that there is no significant difference between General-girls and OBC-girls in mathematics achievement in urban habitat has been accepted.

(e) General-girls and SC-girls (urban):

According to Table 4.38 it was interpreted that there is significant difference in mathematics achievement of General-girls and SC-girls in urban habitat. It was concluded that General-girls seem to be superior in comparison to SC-girls in mathematics achievement in urban habitat. Thus the sub-hypothesis 3.3e has been rejected.

(f) OBC-girls and SC-girls (urban):

As per Table 4.39 it was derived that there is significant difference between OBC-girls and SC-girls with regard to achievement in mathematics in urban habitat. It was said that OBC-girls appear to be better than SC-girls in mathematics achievement in urban habitat. Consequently the sub-hypothesis (numbered 3.3 f) that there is no significant difference in achievement on mathematics between OBC-girls and SC-girls in urban habitat has been rejected.

(g) General-boys and General-girls (urban):

According to Table 4.40 it was noted that General-boys and General-girls do not differ significantly with regard to mathematics achievement in urban habitat. It was concluded that General-girls do not appear to be better in comparison to General-boys on achievement in mathematics in urban habitat. Thus the sub-hypothesis 3.3g of no significant difference in mathematics achievement between General-boys and General-girls in urban habitat has been accepted.
(h) **OBC-boys and OBC-girls (urban):**

On the basis of Table 4.41 it was noted that there is no significant difference between OBC-boys and OBC-girls with regard to achievement in mathematics in urban habitat. It was said that OBC-girls do not appear to be better than OBC-boys in mathematics achievement in urban habitat. Consequently the sub-hypothesis (numbered 3.3h) that there is no significant difference between OBC-boys and OBC-girls in mathematics achievement in urban habitat has been accepted.

(i) **SC-boys and SC-girls (urban):**

As per Table 4.42 it was noted that there is no significant difference between SC-boys and SC-girls in mathematics achievement in urban habitat. It was concluded that SC-boys do not seem to be better than SC-girls in achievement on mathematics in urban habitat. Thus the sub-hypothesis (numbered 3.3i) that there is significant difference between SC-boys and SC-girls in mathematics achievement in urban habitat has been accepted.

**DISCUSSION**

The present discussion is related to the achievement of caste, sex and habitat (urban) groups in mathematics. From the results, it seems that there was no significant difference found between boys and girls of the three caste groups with regard to achievement in urban habitat. The reason may be that both the groups had positive attitude towards mathematics. The results of this study has been supported by Patel (1984), Chitkara (1985), Rajyaguru (1991), Obeidat (1992) and Toole (2001). These studies revealed that there were no association between sex difference and achievement.

The results also indicate that General-students in urban areas were found to be the best achiever among three caste groups in mathematics achievement. SC students in urban areas were the lowest achiever in mathematics. OBC-students were found to be higher scorer than SC-students but they were lower
achiever than General-students in mathematics in urban areas. The reason may be that: (i) Many of the General caste parents were found to be richer in each and every habitat in comparison to the rest of the caste groups; (ii) The socio-cultural and educational background of General caste has been observed to be higher in comparison to other caste groups; (iii) General caste families are educated and provide more facilities to their children. The result of this study has been supported by Mc Nemar (1942) and Prabha (1992). These studies revealed that higher social classes were superior in intelligence to those of the lower classes.

According to Table 4.29 regarding the achievement in mathematics as per sex by habitat (urban), the highest achiever group was of General-girls followed by General-boys, OBC-girls, OBC-boys, SC-boys and at last, the least achiever – SC-girls. Furthermore, General-boys were found to be the best achiever among OBC-boys and SC-boys in mathematics in urban areas. However, OBC-boys do not significantly better in mathematics achievement than SC-boys in urban areas. General-girls and OBC-girls do not differ significantly from each other but both are significantly better than SC-girls in mathematics achievement in urban areas. The result of this has been supported by Das (1992) that performance of the advantaged children was superior to the disadvantaged children.

In this study it is also noted that there was no significant difference found between General-boys and General-girls, OBC-boys and OBC-girls and SC-boys and SC-girls in urban areas in mathematics achievement. The reason may be that both the sex groups in urban habitat showed positive attitude towards mathematics. The result of this study has been supported by Nayer (1971), Patel (1984), Shukla (1984), Kolhe (1985), Baskaran (1991) and Dodendorf (2006). These studies reported that there was no sex difference between achievement level of urban and rural students.
5.1.4 Discussion of results related to achievement in mathematics among boys and girls of three castes viz. General, OBC and SC in sub-urban areas

First of all, the results related to achievement in mathematics among boys and girls of three caste groups in sub-urban areas have been presented separately and thereafter discussion of these results have been carried out as follows:

RESULTS

(A) BETWEEN BOYS AND GIRLS (SUB-URBAN)

As per Table 4.44 it was observed that there is no significant difference between sub-urban-boys and sub-urban-girls of the three caste groups with regard to achievement in mathematics. It was interpreted that sub-urban-boys do not seem to be better than sub-urban-girls of the three caste groups in mathematics achievement. Consequently the main hypothesis 4.1 of no significant difference between sub-urban-boys and sub-urban-girls belonging to the three caste groups in mathematics achievement has been accepted.

(B) AMONG THREE CASTE GROUPS (SUB-URBAN)

As per Table 4.44 it was noted that there is significant difference among three sub-urban caste groups with respect to achievement in mathematics. As per Table 4.43 it was concluded that General students seem to be the best among all the three caste groups of sub-urban habitat in mathematics achievement. Thus the main hypothesis (numbered 4.2) that there is no significant difference among three caste groups of sub-urban habitat in mathematics achievement has been rejected.

(a) General and OBC (sub-urban):

On the basis of Table 4.45 it was interpreted that there is no significant difference between sub-urban General and sub-urban OBC students with regard to the achievement in mathematics. It was concluded that sub-urban General
students do not appear to be better achiever in comparison to sub-urban-OBC students in achievement in mathematics. Thus the sub-hypothesis 4.2a has been accepted.

(b) **General and SC (sub-urban):**

On the basis of Table 4.46 it was interpreted that there is significant difference between sub-urban General and sub-urban-SC students with regard to the achievement in mathematics. It was concluded that sub-urban General students appear to be better achiever in comparison to sub-urban-SC students in mathematics achievement. Thus the sub-hypothesis 4.2b has been rejected.

(c) **OBC and SC (sub-urban):**

According to Table 4.47 it was noted that sub-urban-OBC and sub-urban-SC groups differ significantly with regard to mathematics achievement. It was interpreted that sub-urban OBC students seem to be superior to sub-urban-SC students in mathematics achievement. Consequently the sub-hypothesis (numbered 4.2c) of no significant difference between sub-urban OBC and sub-urban-SC in mathematics achievement has been rejected.

(C) **AMONG SEX BY CASTE GROUPS (SUB-URBAN)**

As per Table 4.44 it was observed that there is significant difference among boys and girls by the three caste groups in sub-urban habitat with respect to achievement in mathematics. As per Table 4.43 it was interpreted that General-students seem to be the best achiever whereas the SC-students were at the bottom in sub-urban habitat with regard to achievement in mathematics. Consequently the main hypothesis (numbered 4.3) of no significant difference among boys and girls of three caste groups in sub-urban habitat in mathematics achievement has been rejected.

(a) **General-boys and OBC-boys (sub-urban):**

According to Table 4.48 it was noted that there is significant difference
between General-boys and OBC-boys with regard to the achievement in mathematics in sub-urban habitat. It was interpreted that General-boys seem to be superior to OBC-boys in mathematics achievement in sub-urban habitat. Consequently the sub-hypothesis (numbered 4.3a) of no significant difference in mathematics achievement between General-boys and General-girls in sub-urban habitat has been rejected.

(b) **General-boys and SC-boys (sub-urban):**

On the basis of Table 4.49 it was derived that there is significant difference in mathematics achievement between General-boys and SC-boys in sub-urban habitat. It was concluded that General-boys seem to be better than SC-boys with respect to achievement in mathematics in sub-urban habitat. Consequently the sub-hypothesis (numbered 4.3b) of no significant difference in mathematics achievement between General-boys and SC-boys in sub-urban habitat has been rejected.

(c) **OBC-boys and SC-boys (sub-urban):**

As per Table 4.50 it was noted that OBC and SC groups differ significantly with regard to mathematics achievement in sub-urban habitat. It was interpreted that OBC-boys seem to be superior to SC-boys in mathematics achievement in sub-urban habitat. Consequently the sub-hypothesis (numbered 4.3c) of no significant difference in mathematics achievement between OBC-boys and SC-boys in sub-urban habitat has been rejected.

(d) **General-girls and OBC-girls (sub-urban):**

On the basis of Table 4.51 it was derived that there is significant difference between General-girls and OBC-girls in mathematics achievement in sub-urban habitat. It was concluded that OBC-girls seem to be better than General-girls in mathematics achievement. Thus the sub-hypothesis (numbered 4.3d) that there is no significant difference between General-girls and OBC-girls in mathematics achievement in sub-urban habitat has been rejected.
(e) **General-girls and SC-girls (sub-urban):**

According to Table 4.52 it was interpreted that there is significant difference in mathematics achievement of General-girls and SC-girls in sub-urban habitat. It was concluded that General-girls seem to be superior in comparison to SC-girls in mathematics achievement in sub-urban habitat. Thus the sub-hypothesis 4.3e has been rejected.

(f) **OBC-girls and SC-girls (sub-urban):**

As per Table 4.53 it was derived that there is significant difference between OBC-girls and SC-girls with regard to achievement in mathematics in sub-urban habitat. It was said that OBC-girls appear to be better than SC-girls in mathematics achievement in sub-urban habitat. Consequently the sub-hypothesis (numbered 4.3f) that there is no significant difference in achievement on mathematics between OBC-girls and SC-girls in sub-urban habitat has been rejected.

(g) **General-boys and General-girls (sub-urban):**

According to Table 4.54 it was noted that General-boys and General-girls differ significantly with regard to mathematics achievement in sub-urban habitat. It was concluded that General-boys appear to be better in comparison to General-girls on achievement in mathematics in sub-urban habitat. Thus the sub-hypothesis 4.3g of no significant difference between General-boys and General-girls in mathematics achievement in sub-urban habitat has been rejected.

(h) **OBC-boys and OBC-girls (sub-urban):**

On the basis of Table 4.55 it was noted that there is significant difference between OBC-boys and OBC-girls with regard to achievement in mathematics in sub-urban habitat. It was said that OBC-girls appear to be better than OBC-boys in mathematics achievement in sub-urban habitat. Consequently the sub-hypothesis (numbered 4.3h) that there is no significant
difference between OBC-boys and OBC-girls in mathematics achievement in sub-urban habitat has been rejected.

(i) **SC-boys and SC-girls (sub-urban):**

As per Table 4.56 it was noted that there is significant difference between SC-boys and SC-girls in mathematics achievement in sub-urban habitat. It was concluded that SC-girls seem to be better than SC-boys on achievement in mathematics in sub-urban habitat. Thus the sub-hypothesis (numbered 4.3i) that there is significant difference between SC-boys and SC-girls in mathematics achievement in sub-urban habitat has been rejected.

**DISCUSSION**

The present discussion is related to the achievement of caste, sex and sub-urban habitat in mathematics. From the results, it seems that there was no significant difference found between boys and girls of the three caste groups with regard to achievement in sub-urban habitat. The reason may be that both the groups had positive attitude towards mathematics. The results of this study has been supported by Patel (1984), Chitkara (1985), Rajyaguru (1991), Obeidat (1992) and Toole (2001). These studies revealed that there were association between sex-difference and achievement.

The results also indicate that General-students in sub-urban areas were found to be the best achiever among three caste groups in mathematics achievement. SC-students in sub-urban areas were the lowest achiever in mathematics. OBC- students were found to be higher scorer than SC-students but they were lower achiever than General-students in mathematics in sub-urban areas. The reason may be that: (i) Many of the General caste parents were found to be richer in every habitat in comparison to the rest of the caste groups; (ii) The socio-cultural and educational background of General caste has been observed to be higher in comparison to other caste groups; (iii) General caste parents have higher education and provide more facilities to their
children. The result of this study has been supported by Mc Nemar (1942) and Prabha (1992). These studies revealed that higher social classes were superior in intelligence to those of lower classes.

As per table 4.43 regarding the achievement in mathematics on the basis of sex by habitat (sub-urban), the highest achiever group was of General-boys followed by OBC-girls, General-girls, OBC-boys, SC-girls and at last, the least achiever SC-boys. In other words, General-boys were found to be the best whereas SC-boys were found to be the lowest in mathematics achievement in sub-urban areas. Similarly General-boys were found to be superior to General-girls in mathematics in sub-urban areas. The reason may be that the boys of the upper caste groups have got to more exposure and morale support by their parents. The result of this study has supported by Benbow and Stanley (1980), Lalithamma (1980), Ethington and Wolfe (1984), Hanna (1986), Moore and Smith (1987), Husen (1987), Patel (1986), Ramona et al. (2002) and Mead (2006). These studies revealed that boys were superior to the girls.

In present study, it is also noted that OBC-girls were found to be the best among General-girls and SC-girls in mathematics achievement in sub-urban areas. Further, there was no significant difference found between General girls and SC-girls in mathematics achievement in sub-urban areas. The reason may be that OBC-girls showed more positive attitude than General and SC-girls in mathematics in sub-urban areas. In another case, OBC-girls and SC-girls were found to be better achiever than OBC-boys and SC-boys respectively in mathematics in sub-urban areas. The reason may be that emphasis on girl's education now-a-days pays more in form of their better achievement. The result of this study has been supported by Abraham and Bhasin (1974), Gupta (1988), Kimball (1998), Harikrishnan (1992) and Saeed, Bashir, Gondal and Bushra (2005).
5.1.5 Discussion of results related to achievement in mathematics among boys and girls of three castes viz. General, OBC and SC in rural areas

Here, the results related to achievement in boys and girls of General, OBC and SC in rural areas have been presented and thereafter these results have been discussed as follows:

RESULTS

(A) BETWEEN BOYS AND GIRLS (RURAL)

As per Table 4.58 it was observed that there is significant difference between rural-boys and rural-girls of the three caste groups with regard to achievement in mathematics. It was interpreted that rural-girls seem to superior to the rural-boys among the three caste groups in mathematics achievement. Consequently the main hypothesis 5.1 of no significant difference between rural-boys and rural-girls of the three habitat groups in mathematics achievement has been rejected.

(B) BETWEEN THREE CASTE GROUPS (RURAL)

As per Table 4.58 it was noted that there is significant difference among three rural caste groups with respect to achievement in mathematics. As per Table 4.57 it was concluded that rural-General students seem to be the best among all the three caste groups of rural habitat in mathematics achievement. Thus the main hypothesis (numbered 5.2) that there is no significant difference among three caste groups in mathematics achievement in rural habitat has been rejected.

(a) General and OBC (rural):

On the basis of Table 4.59 it was interpreted that there is significant difference between rural-General and rural-OBC students with regard to the achievement in mathematics. It was concluded that rural-General students appear to be better achiever in comparison to rural-OBC students in achievement in mathematics. Thus the sub-hypothesis 5.2a has been rejected.
(b) General and SC (rural):

On the basis of Table 4.60 it was interpreted that there is significant difference between rural-General and rural-SC students with regard to the achievement in mathematics. It was concluded that rural-General students appear to be better achiever in comparison to rural-SC students in mathematics achievement. Thus the sub-hypothesis 4.2b has been rejected.

(c) OBC and SC (rural):

According to Table 4.61 it was noted that rural-OBC and rural-SC groups does not differ significantly with each other in mathematics achievement. It was interpreted that rural-OBC students do not seem to be superior to rural-SC students in mathematics achievement. Consequently the sub-hypothesis (numbered 4.2c) of no significant difference between rural-OBC and rural-SC in mathematics achievement has been accepted.

(C) AMONG SEX BY CASTE GROUPS (RURAL):

As per Table 4.58 it was observed that there is no significant difference among boys and girls by the three caste groups in rural habitat with respect to achievement in mathematics. Consequently the main hypothesis (numbered 5.3) of no significant difference among boys and girls of three caste groups in rural habitat in mathematics achievement has been accepted.

(a) General-boys and OBC-boys (rural):

According to Table 4.62 it was noted that there is no significant difference between General-boys and OBC-boys with regard to the achievement in mathematics in rural habitat. It was interpreted that General-boys do not seem to be superior to OBC-boys in mathematics achievement in rural habitat. Consequently the sub-hypothesis (numbered 5.3a) of no significant difference between General-boys and General-girls in mathematics achievement in rural habitat has been accepted.
(b) **General-boys and SC-boys (rural):**

On the basis of Table 4.63 it was derived that there is no significant difference in mathematics achievement between General-boys and SC-boys in rural habitat. It was concluded that SC-boys do not seem to be better than General-boys with respect to achievement in mathematics. Consequently the sub-hypothesis (numbered 5.3b) of no significant difference between General-boys and SC-boys in mathematics achievement in rural habitat has been accepted.

(c) **OBC-boys and SC-boys (rural):**

As per table 4.64 it was noted that rural-OBC and SC-groups do not differ significantly with regard to mathematics achievement. It was interpreted that SC-boys do not seem to be superior to OBC-boys in mathematics achievement in rural habitat. Consequently the sub-hypothesis (numbered 5.3c) of no significant difference between OBC-boys and SC-boys in mathematics achievement in rural habitat has been accepted.

(d) **General-girls and OBC-girls (rural):**

On the basis of Table 4.65 it was derived that there is significant difference between General-girls and OBC-girls in mathematics achievement. It was concluded that General-girls seem to be better than OBC-girls in achievement in rural habitat. Thus the sub-hypothesis (numbered 5.3d) that there is no significant difference between General-girls and OBC-girls on achievement in mathematics in rural habitat has been rejected.

(e) **General-girls and SC-girls (rural):**

According to Table 4.66 it was interpreted that there is significant difference in mathematics achievement of General-girls and SC-girls in rural habitat. It was concluded that General-girls seem to be superior in comparison to SC-girls in mathematics achievement in rural habitat. Thus the sub-hypothesis 5.3e has been rejected.
(f) **OBC-girls and SC-girls (rural):**

As per Table 4.67 it was derived that there is significant difference between OBC-girls and SC-girls with regard to achievement in mathematics in rural habitat. It was said that OBC-girls appear to be better than SC-girls in mathematics achievement in rural habitat. Consequently the sub-hypothesis (numbered 5.3f) that there is no significant difference between OBC-girls and SC-girls in mathematics achievement has been rejected.

(g) **General-boys and General-girls (rural):**

According to Table 4.68 it was noted that General-girls differ significantly with regard to mathematics achievement in rural habitat. It was concluded that General-girls appear to be better in comparison to General-boys on achievement in mathematics in rural habitat. Thus the sub-hypothesis 5.3g of no significant difference between General-boys and General-girls in mathematics achievement has been rejected.

(h) **OBC-boys and OBC-girls (rural):**

On the basis of Table 4.69 it was noted that there is significant difference between OBC-boys and OBC-girls with regard to achievement in mathematics in rural habitat. It was said that OBC-girls appear to be better than OBC-boys in mathematics achievement in rural habitat. Consequently the sub-hypothesis (numbered 5.3h) that there is no significant difference in mathematics achievement between OBC-boys and OBC-girls has been rejected.

(i) **SC-boys and SC-girls (rural):**

As per Table 4.70 it was noted that there is no significant difference between SC-boys and SC-girls in mathematics achievement in rural habitat. It was concluded that SC-girls do not seem to be better than SC-boys on achievement in mathematics in rural habitat. Thus the sub-hypothesis (numbered 5.3i) that there is no significant difference between SC-boys and SC-girls in mathematics achievement has been accepted.
DISCUSSION

The present discussion is related to the achievement of caste, sex and rural habitat in mathematics. From the results, it seems that there was significant difference found between boys and girls of the three caste groups with regard to achievement in rural habitat. The girl-students were found to be better than the boys with respect to achievement in mathematics in rural habitat. The reason may be that: (i) Increasing encouragement and support from parents and teachers were found to be present and influenced girl's academic achievement and participations; (ii) Sense of competence and academic participation were observed to be important factors associated with the achievement of girl students; (iii) Policies aiming to improve the achievement and participation level of girls in Mathematics / Science subjects were expected to be determining factors in favour of girls to excel in. The result of this study has been supported by Abraham and Bhasin (1974), Gupta (1988), Kimball (1989), Harikrishnan (1992) and Saeed, Bashir Gondal and Bushra (2005).

The results also indicate that General-students in rural areas were found to be the best achiever among three caste groups in mathematics achievement. SC-students in rural areas were the lowest achiever in mathematics. OBC-students were found to be higher scorer than SC-students but they were lower achiever than General-students in mathematics in rural areas. The reason may be that: (i) Many of the General caste parents were found to be richer in each and every habitat in comparison to the rest of the caste groups; (ii) The socio-cultural and educational background of General-caste has been observed to be higher in comparison to other caste groups; (iii) General caste parents have higher education and provide more facilities to their children. The result of this study was supported by Anand (1973). He found that socio-economic environment influenced mental abilities. Indra (1991) indicated that students belonging to different social classes differed in their academic achievement and
Hindu, Muslim and Christian students differed in their academic achievement.

As per table 4.57 regarding the achievement in mathematics on the basis of sex by habitat (rural), the highest achiever groups was of General-girls followed by OBC-girls, General-boys, SC-girls, SC-boys and at last, the lowest achiever group-OBC-boys. In other words, General-girls were found to be the best achiever whereas OBC-boys were found to be the lowest in mathematics in rural areas. The reason may be that the emphasis on girl’s education now-a-days pays more when it comes to General caste group which is better equipped with many resources. The result of this study has been supported by Mc Nemar (1942), Prabha (1992). These studies revealed that higher social classes were superior in intelligence to those of the lower classes. The findings has been also supported by Saeed, Bashir, Gondal and Bushra (2005). They found that girls were superior to boys.

In present study, it is also found that there was no significant difference among boys of all the three caste groups in rural areas in mathematics achievement. The reasons may be that boys of all the three caste groups in rural areas showed positive attitude towards mathematics.

Further, General-girls and OBC-girls were found to be significantly better achiever than General-boys and OBC-boys respectively. This higher achievement of girls over their boys counterparts has already been discussed at many places. However, SC-girls were not found to be significantly better achiever than SC-boys in mathematics in rural areas.

5.2 Findings of the study

On the basis of the analysis of data, the following findings have been drawn:

5.2.1 Findings related to overall achievement in mathematics among boys and girls of the three caste groups.

5.2.1. a There was significant difference found between boys and girls of the
three caste groups with regard to overall achievement in mathematics. Girls were found to be better achiever than boys in mathematics achievement.

5.2.1. b There was significant difference found among the three caste groups in mathematics and General caste students were found to be the best among three caste groups in mathematics achievement. SC-students were the lowest achiever in mathematics. Similarly General-girls were found to be the best achiever while the SC-boys were the lowest achiever in mathematics.

5.2.1. c General-girls were also found to be better achiever than SC-girls in mathematics. However, there was no significant difference found between General-girls and OBC-girls in mathematics achievement.

5.2.1. d General-girls were not found to be significantly better than General-boys in mathematics. Similarly, SC-girls were not significantly better than SC-boys. However, OBC-girls were significantly better achiever than OBC-boys in mathematics achievement.

5.2.2. Findings related to overall achievement in mathematics among boys and girls of the three habitat groups.

5.2.2.a There was significant difference found between boys and girls of the three habitat groups with regard to overall achievement in mathematics. Girls were found to be better achiever than boys in mathematics achievement.

5.2.2.b There was significant difference found among the three habitat groups in mathematics and urban-students were found to be the best among three habitat groups in mathematics achievement. Rural students were the lowest achiever in mathematics. Similarly urban-girls were found to be the best achiever while the rural-boys were the lowest achiever in mathematics.

5.2.2.c Sub-urban-girls were found to be better achiever than rural-girls in
mathematics but they were lower than urban-girls in mathematics achievement.

5.2.2.d Urban-girls and sub-urban-girls were not found to be significantly better achiever than urban-boys and sub-urban-boys respectively in mathematics. However, there was significant difference in mathematics achievement between rural-boys and rural-girls where rural-girls were found to be significantly better achiever than rural-boys in mathematics.

5.2.3. **Findings related to achievement in mathematics among boys and girls of the three castes vīz. General, OBC and SC in urban areas.**

5.2.3.a There was no significant difference found between boys and girls of the three caste groups with regard to mathematics achievement in urban habitat.

5.2.3. b General students were found to be the best achiever among three caste groups in mathematics in urban habitat. SC-students in urban areas were the lowest achiever in mathematics.

5.2.3. c General-boys were found to be the best achiever among OBC-boys and SC-boys in mathematics in urban areas. However, there was no significant difference found between OBC-boys and SC-boys in mathematics achievement in urban areas.

5.2.3. d Both the General-girls and OBC-girls were superior to SC-girls in mathematics achievement in urban areas. There was no significant difference found between General-girls and OBC-girls in mathematics achievement in urban habitat.
5.2.4. Findings related to achievement in mathematics among boys and girls of three castes groups viz. General, OBC and SC in sub-urban areas.

5.2.4. a There was no significant difference found between boys and girls of the three caste groups with regard to mathematics achievement in sub-urban habitat.

5.2.4. b There was significant difference found among the three caste groups in mathematics in sub-urban areas and General-students were found to be better than SC-students. However, General-students do not differ significantly with OBC-students in sub-urban areas in mathematics achievement.

5.2.4. c General-boys were found to be the best whereas SC-boys were found to be the lowest in mathematics achievement in sub-urban areas.

5.2.4. d OBC-girls were found to be the best among General-girls and SC-girls in mathematics achievement in sub-urban areas. It was also noted that there was no significant difference found between General-girls and SC-girls in mathematics achievement in sub-urban areas.

5.2.4. e OBC-girls and SC-girls were found to be better achiever than OBC-boys and SC-boys respectively in mathematics in sub-urban areas. However, General-boys were found to be superior to General-girls in mathematics achievement in sub-urban areas.

5.2.5. Findings related to achievement in mathematics among boys and girls of three castes groups viz. General, OBC and SC in rural areas.

5.2.5. a There was significant difference found between boys and girls of the three caste groups with regard to mathematics achievement in rural habitat. Girls were found to be better achiever than boys in mathematics in rural areas.
5.2.5. b There was significant difference found among the three caste groups in mathematics in rural areas and General-students were found to be the best among three caste groups in mathematics achievement. Rural-SC-students were the lowest achiever in mathematics.

5.2.5. c There was no significant difference found among boys of all the three caste groups in rural areas in mathematics achievement.

5.2.5. d General-girls were found to be the best achiever than OBC-girls and SC-girls in rural habitat with regard to achievement in mathematics. SC-girls were found to be the lowest achiever in mathematics in rural areas.

5.2.5. e General girls and OBC-girls were found to be the better achiever than General-boys and OBC-boys respectively in mathematics in rural habitat. However, SC-girls were not found to be better achiever than SC-boys in mathematics in rural areas.

5.3 Educational Implications:

The findings of this study can not be generalized to all levels of schooling due to the limitations contained in the study. They have directed educational implications. In Devipatan Division-Gonda opportunities have been open to all children without any caste, sex and habitat etc. It is a division with numerous cultures, languages and religions. It is also a land of diverse castes and social status. And there is a close relationship between caste system and social status. A person belonging to a high caste (Brahman, Kshatriya etc.) has high social status than a person belonging to lower groups (Dhobi, Ahir, Stone-Cutter etc.) similarly boys have privilege over girls in taking education. Students of urban areas are more resourceful than their counterparts in rural areas.

Children differ in intelligence, achievement and social behavior. All these differences may cause serious problems in child's progress in mathematics. High social class families, males and urban students always
ignore or place various barriers before lower class families, females and rural students. Children coming from low social class families suffer numerous disadvantages: social, economic, education. The present study can provide reliable information in achievement in mathematics of different castes, sex and habitats, so that policy makers, teachers, donor agencies do efforts to raise achievement in mathematics of lower secondary children in Devipatan Division-Gonda.

Thus the present study may be useful to the needs of the country and it may be also useful to the society. It has been observed by the study that on average, boys, SC-Students and rural-students have achieved significantly lower than the girl-students, General and OBC caste groups, and urban and sub-urban children. Government should provide facilities to the children of these sex, caste and habitat groups.

The present study can be also more useful to the teachers and parents because they can play useful role in achievement in mathematics to the students. The teacher must try to improve the teaching so that achievement in mathematics can be raised among the boys, SC and rural students. Teacher needs to play special attention to the boys, SC and rural students to help them learn mathematics well. Parent's participation in school activities, help in homework etc. play important role in the development of mathematics achievement among boys, SC and rural Students. Mathematics teachers, parents and government have to play more attention to improve the achievement level in mathematics among boys of SC-category in rural area. The school and parents must provide conducive and appropriate environment to the students.

5.4 Suggestions for Further Research

On the basis of findings and conclusions the following suggestions have been made for further research.

1. The present study was conducted in Devipatan Division-Gonda of U.P.
Only three major caste groups belonging to different sexes and urban, sub-urban and rural habitat were included in the sample. It is, therefore, suggested that the study may be replicated including other caste groups of other administrative divisions as well to ensure effective generalization.

2. The present study is limited to only three caste groups viz. General, OBC and SC of Devipatan Division-Gonda; similar studies may be done in other areas with bigger sample size.

3. The present study has sampled the students of government's upper primary schools only; similar studies may be conducted in Public and Private schools as well.

4. Similar studies to be carried out at each grade level of schooling so as to identify the trends in the learning of mathematics by school students.

5. A study may be conducted to compare the achievement in Science and English of different caste, sex and habitat groups at each grade level of schooling.

6. A study may also be conducted to compare the achievement in professional courses of different caste, sex and habitat groups.