

CHAPTER VI

ANALYSIS OF DATA AND RESULTS - SIMPLE CORRELATIONS

6.1 Types of Analysis

6.2 Analysis of Results

- (a) Relationship of the variables with Achievement in English
- (b) Relationship of the variables with Achievement in Telugu
- (c) Relationship of the variables with Achievement in Mathematics
- (d) Relationship of the variables with Achievement in Physics
- (e) Relationship of the variables with Achievement in Chemistry
- (f) Relationship of the variables with Achievement in Botany
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- (j) Relationship of the variables with Achievement in Economics
- (k) Relationship of the variables with Achievement in Languages
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- (n) Relationship of the variables with Achievement in CBZ Group
- (o) Relationship of the variables with Achievement in Total Achievement

6.3 Results and Discussion

CHAPTER

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ANALYSIS OF DATA AND RESULTS -
 SIMPLE CORRELATIONS

In the present study, the relationships of twenty-two independent (Predictor) variables (broadly four variables - Home, Need for achievement, Intelligence, Personality) with twenty-three dependent (criterion) variables (achievement in different subjects of groups of subjects studied by First Year Degree Class students) are examined.

The independent variables included in the study are given below :

- | | |
|-------------------|---|
| I. Home Variables | 1. Parental value on education and academic achievement |
| | 2. Emotional climate in the home |
| | 3. Parental encouragement |
| | 4. Educational facilities in the home |
| | 5. Socio-economic status |

II. Need for achievement	6. Need for achievement
III. Intelligence	7. Intelligence
IV. Personality	8. Personality Factor A*
	9. Personality Factor C
	10. Personality Factor E
	11. Personality Factor F
	12. Personality Factor G
	13. Personality Factor H
	14. Personality Factor I
	15. Personality Factor L
	16. Personality Factor M
	17. Personality Factor N
	18. Personality Factor O
	19. Personality Factor Q1
	20. Personality Factor Q2
	21. Personality Factor Q3
	22. Personality Factor Q4

The dependent variables studied are shown hereunder :

1. Achievement in English - Males
2. Achievement in English - Females
3. Achievement in Telugu - Males
4. Achievement in Telugu - Females
5. Achievement in Mathematics - Males
6. Achievement in Physics - Males

* For description of the factors, refer Chapter IV.

7. Achievement in Chemistry - Males
8. Achievement in Chemistry - Females
9. Achievement in Botany - Males
10. Achievement in Botany - Females
11. Achievement in Zoology - Males
12. Achievement in Zoology - Females
13. Achievement in History - Males
14. Achievement in Politics - Males
15. Achievement in Economics - Males
16. Achievement in Languages - Males
(Total marks in English
and Telugu)
17. Achievement in Languages - Females
(Total marks in English
and Telugu)
18. Achievement in MPC group - Males
(Total marks in Mathematics,
Physics and Chemistry)
19. Achievement in CBZ group - Males
(Total marks in Chemistry,
Botany and Zoology)
20. Achievement in CBZ group - Females
(Total marks in Chemistry,
Botany and Zoology)
21. Achievement in HPoEc group - Males
(Total marks in History,
Politics and Economics)
22. Total achievement in all the subjects - Males
23. Total achievement in all the subjects - Females

The relationships between the above variables are
worked out and analysed.

Results are analysed in two ways : first, studying the relationship of each individual variable with achievement in each individual subject or groups of subjects by means of simple correlations for identifying the significant correlates of achievement in those subjects; second, studying the combined effect of these variables on achievement in certain groups ~~groups~~ of subjects by means of multiple regression analysis and correlation. The second analysis also attempted to identify the relative contribution of each variable and also the Potential Predictors and their relative contribution to achievement in certain groups of subjects.

The first type of analysis by means of simple correlations (zero order correlations) is presented in this chapter and the second type of analysis by multiple regression and correlation is presented in the chapter to follow.

6.2 ANALYSIS OF RESULTS

Individual zero order correlations of the twenty-two independent variables with twenty-three dependent variables are presented and discussed. The correlations are calculated as per the procedure explained in Chapter V.

Table - 3 : Correlations between variables and Achievement
in English (E) and Telugu (T) by Sex.

Subject Variable	E		T	
	Males N : 322	Females N : 74	Males N : 322	Females N : 74
1	.0390	-.0135	.0281	.0677
2	.0442	.0281	.0869	.1363
3	.0985	.1346	-.0119	.0175
4	-.0275	.1968	-.0689	-.0297
5	.0195	.0314	.0148	-.0267
6	.1449 x	-.0870	.1185 xx	.0883
7	.2787 x	.1233	.1811 x	.0435
8	-.1195 xx	-.1359	-.0779	.0210
9	.0279	.0282	-.0405	-.0422
10	.0596	-.0523	-.0267	-.0143
11	-.0241	.0529	-.0451	.1076
12	.0316	-.0639	-.0454	.3311 x
13	-.0330	-.0151	-.0300	-.0335
14	-.0004	.0870	-.0066	.0894
15	-.0217	.0955	.0232	.0051
16	-.0762	-.0838	.0182	.0510
17	-.0317	.2084	.0490	.0392
18	-.0662	.0478	.0223	-.0044
19	.0998	-.1147	.0216	-.0275
20	.0150	.1059	.0812	-.0905
21	.1730 x	.0018	.1821 x	.1302
22	-.1062	-.0847	-.1328 xx	-.0580

x significant at .01 level

xx significant at .05 level

(a) Relationship of the Variables
with Achievement in English

In the case of males, need for achievement, intelligence and personality factor Q3 are positively related and personality factor A is negatively related to achievement in English. Controlled, socially - precise, following self image (high self-concept control) type of personality (Factor Q3) is positively related, whereas out-going, easy going, participating nature (Factor A) is negatively related to achievement in English. In the case of females, no variable is associated with achievement in English (Table No.3)

(b) Relationship of the Variables
With Achievement in Telugu

In the case of males, need for achievement, intelligence and personality factor Q3 (i.e. controlled, socially precise, high control of emotions and general behaviour) are positively related whereas personality factor Q4 (i.e. tense, frustrated, driven, over-wrought) is negatively related to achievement in Telugu. Only personality factor G (i.e. persevering, rule-bound, responsible, conscientious) is positively related to achievement in Telugu in the case of females (Table No. 3)

Table - 4 : Correlations Between Variables and Achievement
in Mathematics (M), Physics (P) and Chemistry
(C) by Sex.

Subjects variables.	M	P	C	
	Males N:110	Males N:110	Males N:218	Females N: 74
1	.0131	.0625	.0346	-.0508
2	.0002	.1768	.1768 ^a x	.1880
3	-.0469	.0050	.0089	-.0266
4	-.0738	.0776	.0597	.1454
5	-.1478	-.0789	.0340	-.0078
6	.1041	.1997 xx	.1711 xx	-.0536
7	.2678 x	.2577 x	.1778 x	.1413
8	.0928 ^{.0978}	-.1643	.0538	-.0950
9	-.2008 xx	.0042	.0327	.1881
10	-.0127	.0534	.0552	-.1478
11	-.0054	.0355	.0572	-.0727
12	.1066	.0299	.1363 xx	.0186 ^b
13	-.0418	.0584	.0721	.0422
14	-.0094	.1374	.0870	-.0503
15	.0146	-.1272	.1410 xx	.2197
16	-.0560	-.0391	.0728	-.3364 x
17	-.0243	-.0582	.0254	.1260
18	.0481	-.0290	.0573	-.1916
19	-.2633 x	.0088	.0355	.0089
20	.0097	-.0239	.0339	.0595
21	-.1815	-.0739	.0376	.0503
22	-.0454	.0436	.0624	-.0640

x significant at .01 level

xx significant at .05 level

(c) Relationship of the Variables
with Achievement in Mathematics

Intelligence is positively related and personality factors C and Q1 are negatively related to achievement in Mathematics in the case of males (Table No. 4). Factor C, i.e. emotionally stable, unruffled, possessing higher ego strength should have been positively related in the normal course. Radicalism (Factor Q1) has adverse effect on achievement. Mathematics calls for conservative personality.

(d) Relationship of the Variables
with Achievement in Physics

In the case of males, need for achievement, intelligence are positively related to achievement in Physics (Table No.4). Except the above two variables, others did not reach the level of significance.

(e) Relationship of the Variables with
Achievement in Chemistry

Emotional happiness (Lack of emotional climate) in the home, need for-achievement, intelligence and personality factors G (conscientious, persevering, rule-bound, responsible) and L (suspecting, jealous, self-sufficient, unconcerned about others) are positively related in the case of males, whereas personality factor M (unconventional, self-absorbed, introverted) is negatively related to achievement in Chemistry ^{in the case of females} (Table No. 4).

Table - 5 : Correlations between Variables and Achievement
in Botany (B) and Zoology (Z) by Sex

Subjects Variables.	B		Z	
	Males	Females	Males	Females
	N:108	N : 74	N : 108	N:74
1	-.2024 xx	-.0695	-.1452	.1189
2	.0528	.0476	.1200	.2001
3	.0123	-.0489	-.0666	.0128
4	.0330	.1874	-.0226	.1793
5	.0227	.1564	-.0495	.0377
6	.1174	-.1694	-.0686	.0724
7	.1335	.0806	.1860	.1828
8	.1725	-.0602	-.0439	-.0410
9	.0547	.0007	-.0397	-.0624
10	.0885	-.0200	.0483	-.2175
11	-.1087	-.0143	.0990	-.0842
12	.2503 x	.0153	.0673	.2977 x
13	-.2392 xx	.1421	-.3314 x	-.1997
14	.2655 x	.0300	-.0011	.0847
15	-.0480	.0292	-.0230	.2806 xx
16	-.2089 xx	-.2299 xx	.0032	-.0818
17	.1333	.1633	.1141	.1145
18	-.0606	.1085	.0561	-.0100
19	-.0934	-.0685	.0103	-.0415
20	.1372	.0607	.0513	.0857
21	.0159	-.0656	.1426	.2185
22	-.0799	-.1273	.0852	.1205

x Significant at .01 level

xx Significant at .05 level

(f) Relationship of the Variables
with Achievement in Botany

Parental value on education and achievement, personality factors H (venturesome, socially-bold, uninhibited, interest in opposite sex) and M (unconventional, self-absorbed, introvert) are negatively related whereas personality factors G (conscientious, persistent) and I (sensitive, demanding, seeking help) are positively related to achievement in Botany in the case of males. Personality factor M is also negatively related ⁱⁿ to the case of females (Table No. 5)

(g) Relationship of the Variables
with Achievement in Zoology

In the case of males, only personality factor H (~~conscientious, persevering~~ ^{venturesome, socially bold}) is negatively related whereas personality factors G (conscientious, persevering) and L (suspicious, unconcerned about others) are positively related to achievement in Zoology in the case of females (Table No.5)

(h) Relationship of the Variables
with Achievement in History

In the case of males, personality factor Q3 (controlled, socially precise) is positively related to achievement in History (Table No. 6).

Table - 6 : Correlations between Variables and Achievement
in History (H), Politics (Po) and Economics (Ec)
Males.

Subjects Variables	H Males N:104	Po Males N:104	Ec Males N:104
1	-.1112	-.0360	-.0471
2	.0143	-.0538	-.0396
3	-.0178	.1747	.1927 xx
4	-.0344	-.0339	-.0503
5	-.0319	.0590	-.0033
6	.1349	.1817	.3166 ^x xx
7	.0971	.0840	.1018
8	.0498	-.0123	.1105
9	.0020	.0898	-.0224
10	.0842	-.0756	-.0567
11	.0235	.0767	-.0273
12	-.1156	-.0414	-.0907
13	.0863	-.0229	-.0868
14	.1713	.1973 xx	.1475
15	.0528	-.0541	.0096
16	-.1146	-.0320	.03 ³ 54
17	.0149	-.0982	-.1206
18	-.0495	.0758	.0202
19	.0959	.0561	.0644
20	.1593	.0539	.1106
21	.2460 xx	.2243 xx	.2070 xx
22	.0404	.0567	.1402

x significant at .01 level

xx significant at .05 level

Table - 7 : Correlations Between Variables and
Achievement in Languages (Achievement in
English and Achievement in Telugu) by Sex.

Subjects Variables	Languages	
	Males N:322	Females N : 74
1	.0407	.0344
2	.0794	.1044
3	.0547	.0864
4	-.0585	.0901
5	.0210	-.0034
6	.1607 x	.0073
7	.2808 x	.0958
8	-.1209 xx	-.0623
9	-.0068	-.0098
10	.0204	-.0354
11	-.0425	.1013
12	-.0071	.1783
13	-.0382	-.0280
14	-.0038	.1058
15	-.0272	.0560
16	-.0372	-.0177
17	.0094	.1427
18	-.0282	.0202
19	.0749	-.0833
20	.0576	.0046
21	.2163 x	.0878
22	-.1452 x	-.0898

x significant at .01 level
xx significant at .05 level

(i) Relationship of the Variables
with Achievement in Politics

Personality factors I (tender-minded, dependent, over-protected) and Q3 (controlled, socially-precise) are positively related to achievement in Politics in the case of males (Table No. 6).

(j) Relationship of the Variables
with Achievement in Economics

In the case of males, parental encouragement, need for achievement and personality factor Q3 (controlled, socially precise) are positively related to achievement in Economics (Table No. 6).

(k) Relationship of the Variables
with Achievement in Languages

In the case of males, need for achievement, intelligence, and personality factor Q3 (controlled, socially-precise) are positively related whereas personality factors A (out-going, easy-going) and Q4 (frustrated, tense) are negatively related to achievement in Languages. In the case of females, no variable is related to achievement in Languages (Table No.7).

Table - 8 : Correlations between Variables and Total Achievement in HPoEc Group (Males), in MPC Group (Males), and in CBZ Group (Males and Females)

Subjects Variables.	HPoEc Male N:104	MPC Male N:110	Male N:108	CBZ Female N : 74
1	-.0767	.0753	-.2066 xx	-.0270
2	-.0315	.1211	.1180	.1616
3	.1387	.0029	.0005	-.0408
4	-.0464	.0331	.0360	.2481 xx
5	.0116	-.1065	.0525	.1297
6	.2505 xx	.2024 xx	.1012	-.1200
7	.1116	.2748x	.1853	.1668
8	.0587	-.1334	.1276	-.0884
9	.0281	-.1160	.0476	.0353
10	-.0205	.0156	.0925	-.1346
11	.0282	.0124	-.0879	-.0963
12	-.0971	.0611	.2560 x	.1201
13	-.0110	-.0195	-.2990 x	.0518
14	.2041 xx	.0334	.1911 xx	.0370
15	.0010	-.0831	-.0862	.1849
16	-.0439	-.0696	-.1667	-.3039 x
17	-.0807	-.0709	.1500	.2015
18	.0197	-.0257	-.0564	.0218
19	.0850	-.1297	-.0423	-.0638
20	.1285	-.0382	.1339	.0936
21	.2675 x	-.1344	.0898	.0407
22	.0943	-.0145	-.0130	-.0743

x significant at .01 level

xx significant at .05 level

(l) Relationship of the Variables with Achievement in HPoEc Group (Composite scores in History, Politics and Economics)

In the case of males, need for achievement, and personality factors 1 (tender-minded, dependent) and Q3 (controlled, socially-precise) are positively related to composite scores in History, Politics, and Economics (Table No. 8).

(m) Relationship of ^{the} Variables with Achievement in the Group MPC (Composite scores in Mathematics, Physics and Chemistry)

In the case of males, need for achievement and intelligence are positively related to composite achievement scores in Mathematics, Physics and Chemistry (Table No. 8).

(n) Relationship of the Variables with Achievement in the CBZ Group (Composite scores in Chemistry, Botany and Zoology)

In the case of males, G (conscientious, persevering) and I (tender-minded, dependent) personality factors are positively related whereas parental value on education and achievement and personality factor H (venturesome, socially bold) are negatively related to composite scores in Chemistry, Botany and Zoology. In the case of females, educational facilities are positively related whereas personality factor M (imaginative, unconventional, wrapped up in inner urgencies) is negatively related to achievement in Chemistry, Botany and Zoology group (Table No. 8).

Table - 9 : Correlations between Variables and Total Achievement by Sex.

Subjects Variables.	Total Achievement	
	Males N:322	Females N : 74
1	-.0441	-.0130
2	.0858	.1067
3	.0546	.0075
4	-.0075	.2364 xx
5	.0066	.1265
6	.2065 x	-.1096
7	.2643 x	.1394
8	-.0413	-.0808
9	-.0023	.0224
10	.0277	-.1572
11	-.0315	-.0228
12	.0685	.1454
13	-.0967	.0125
14	.0976	.0868
15	-.0668	.1461
16	-.0841	-.2162
17	.0180	.2333 xx
18	-.0373	.0090
19	.0042	-.0742
20	.0897	.0693
21	.1297 xx	.0754
22	-.0579	-.1011

x significant at .01 level

xx significant at .05 level

Table -10 : Correlations between independent variables and dependent variables covered by the Study (Summary of tables 3-9, by sex.

E	M	F	TM	IF	IM	PM	CM	CF	BM	SF	ZM	ZF	EM	FOM	EOM	LM	IF	IP	CBZ	CBZ	HGOEC	Total	Total
39	044	028	087	068	013	063	035	051	022	069	045	019	011	036	047	041	034	075	027	027	077	044	013
044	028	087	068	013	000	177	176x	188	053	048	120	200	014	054	040	079	104	121	162	162	032	086	107
098	135	012	018	047	005	009	009	027	012	049	067	013	016	173	103	055	086	053	001	040	039	055	007
028	197	069	030	074	078	060	060	145	033	187	023	179	034	054	050	059	090	033	036	248	046	007	236*
020	031	015	027	143	079	034	008	008	023	156	050	038	032	059	003	021	003	107	052	130	012	007	126
145x	087	119	093	134	200	171	054	054	117	169	069	072	135	182	317x	161x	007	102	101	120	231*	207x	110
279x	123	181x	043	263x	258x	173x	141	133	133	081	186	183	097	083	102	281x	096	275x	185	167	112	264x	139
120*	036	078	021	033	134	054	054	095	172	060	044	041	050	012	110	121*	062	122	123	088	059	041	081
028	028	040	042	201*	004	033	033	188	055	001	040	062	002	090	022	007	010	116	048	035	028	002	022
060	052	027	014	011	053	05	05	148	088	020	043	218	084	076	037	020	035	016	095	135	020	028	157
024	053	045	138	005	025	057	057	073	109	014	099	184	024	077	027	043	101	012	088	096	023	031	025
032	064	045	331x	107	020	136	072	019	250x	015	067	298x	116	041	031	007	173	061	256x	120	097	068	145
033	015	050	034	042	058	087	042	042	239*	142	331x	200	086	023	037	033	023	020	239x	052	011	097	012
000	027	007	089	003	137	137	087	050	266x	030	001	065	171	103	143	004	106	052	191*	037	204*	098	387
022	093	023	005	015	127	141	141	220	048	029	023	251*	053	054	010	027	056	083	086	185	001	067	146
076	084	018	051	036	035	073	073	336x	209*	230	003	082	115	032	035	037	018	070	167	304x	044	084	216
032	208	049	039	024	038	025	025	126	133	103	114	114	015	038	121	009	143	071	150	202	081	018	233*
066	048	022	004	043	029	053	053	192	061	108	056	010	049	076	020	023	020	026	056	022	020	037	009
100	115	022	027	263x	009	035	035	009	093	069	010	042	096	053	064	075	032	120	042	064	084	024	074
115	106	081	091	010	024	034	034	060	137	064	051	086	195	054	111	058	005	038	134	034	128	090	069
72x	002	182x	130	031	074	038	038	050	016	066	143	219	245*	234*	207*	213x	088	174	090	041	267x	130*	075
106	085	132	058	045	044	062	064	064	080	127	085	121	040	057	140	145x	032	012	013	074	094	053	101

significant at .01 level * significant at .05 level.

Table - 11 : Significant correlates of Achievement in different subjects or group of subjects
(Summary of Table -10)

Subject Variable.	E		T		M		P		C		B		Z		H		Po		Ec		L		MPC		CBZ		HpoEc		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23							
1																														
2																														
3																														
4																														
5																														
6	x		*			*	*								x								*		*		*		x	
7	x		x			x	x									x						x						x		
8	-*															-*														
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19																														
20																														
21	x		x																											
22			*																											

@ No. of times significantly related our of 23 correlations.
 x Significant at .01 level
 * Significant at .05 level.

(o) Relationship of the Variables with Total Achievement(Composite scores in all the subjects)

In the case of males, need for achievement, intelligence and personality factor Q3 (controlled, socially-precise) are positively related whereas educational facilities and personality factor N (polished, shrewd, calculating) are positively related to total achievement in the case of females (Table No. 9).

6.3 RESULTS AND DISCUSSION

A consolidated picture of the relationships between the independent and dependent variables covered by the study (summary of Tables 3-9) is given in Table No. 10.

The variables that are significantly related to achievement in different subjects or groups of subjects (summary of Table No. 10) are shown in Table No. 11. By reading the table vertically (column-wise), what variables are significantly related to achievement in different subjects may be noted. For example, variables 6 (~~Personality Factor A~~ - Need for achievement), 7 (Intelligence), 8 (Personality Factor A, - sign indicates negative relationship) and 21 (Personality Factor Q3) are significantly related to achievement in English in the case of males. Similarly, the variables significantly related to achievement in other subjects may be read easily from the Table. The significant correlates of achievement in different subjects, with more

details, are also found in Table No. 23 of Chapter VII. By reading the Table horizontally (rows) it can be seen how each variable is related to achievement in different subjects or groups of subjects. From the Table No. 11, the following conclusions can be drawn :

1. Parental Value on Education and Achievement :

Negatively related to achievement in Botany and CBZ group in males and not in females. It is not known why there is negative relationship. It is likely that parents with high value on education may present to their children extremely high (pressuring) demands for achievement and this may adversely affect achievement.

2. Emotional Happiness (Lack of Emotional Climate) in the Home : Positively related to achievement in Chemistry in males and not in females.

3. Parental Encouragement : Positively related to achievement in Economics in males.

4. Educational Facilities in the Home : Positively related to achievement in CBZ group and total achievement in the case of females and not in males. This variable is specifically related to achievement in the case of females and not in males.

5. Socio Economic Status of the Home : Not at all related to achievement in any subject.

6. Need for Achievement : Positively related to achievement in English, Telugu, Physics, Chemistry, Economics, Languages, MPC Group, HPoEc Group and total achievement in males. This variable is not related to achievement in any subject in females.
7. Intelligence : Positively related to achievement in English, Telugu, Mathematics, Physics, Chemistry, Languages, ^MMPC Group, total achievement in the case of males. It is not related to achievement in the case of females.
8. Personality Factor A : Negatively related to achievement in English and Languages in males and not in females. Out-going, warm hearted and easy-going nature of personality may adversely affect achievement.
9. Personality Factor C : Negatively related to achievement in Mathematics in males. This factor which indicates emotional maturity and stability should have been positively related in the normal course.
- 10 & 11. Personality Factors E and F : Not at all related to achievement in any subject.
12. Personality Factor G : Positively related to achievement in Telugu and Zoology in females and not in males and in Chemistry, Botany, CBZ Group in males and not in females. Conscientious, persistent, determined, emotionally mature nature of personality is positively related to achievement.

13. Personality Factor H : Negatively related to achievement in Botany, Zoology, CBZ Group in males and not in females, and positively related to achievement in HPoEc Group in males. The negative relationship of this factor (adventurous, thick-skinned, overt, interest in opposite sex, impulsive and frivolous) is in the expected direction.
14. Personality Factor I : Positively related to achievement in Botany, Physics, and CBZ Group in males and not in females. This factor which indicates sensitive, demanding, impatient, dependent, seeking help, kindly, gentle nature of personality is positively related to achievement.
15. Personality Factor L : Positively related to achievement in Chemistry in males and not in females and in Zoology in females and not in males. Suspecting, jealous, self-sufficient nature of personality is positively related to achievement.
16. Personality Factor M : Negatively related to achievement in Chemistry and CBZ Group in females (not in males) and in Botany in males and females. Unconventional, self-absorbed, introverted, absent-minded nature of personality is negatively related to achievement.

17. Personality Factor N : Positively related to total achievement in females and not in males. Shrewd, sophisticated, polished, aloof, emotionally disciplined nature of personality is positively related to achievement in females. This variable is not at all related to achievement in males.
18. Personality Factor O : Not at all related to achievement in any subject. Timid, insecure, worrying, anxious, depressed nature of personality is not related to achievement.
19. Personality Factor Q1 : Negatively related to achievement in Mathematics in males. Radicalism appears to be negatively related to achievement in Mathematics.
20. Personality Factor Q2 : Not at all related to achievement in any subject. Self-sufficient, resourceful vs. socially group dependent nature is not associated with achievement.
21. Personality Factor Q3 : Positively related to achievement in English in males and females, achievement in Languages and total achievement in males and not in females, achievement in History, Politics, Economics and HPoEc Group in males. High self-sentiment formation, controlled, exacting will power is positively related to achievement.

22. Personality Factor Q4 : Negatively related to achievement in English in females and not in males and to achievement in Languages in males and not in females. High ergic tension (tense and excitable) is negatively related to achievement.

If one looks at the variables related to achievement in certain groups of subjects, namely, Languages, MPC Group, CBZ Group, HPoEc Group and total achievement, the following observations can be made :

Personality factor Q3 (variable 21) is related to achievement in Languages, achievement in Humanities Group (HPoEc) and not related to achievement in Science Groups (CBZ or MPC). It is also not related to achievement in individual science subjects - Mathematics, Physics, Chemistry, Botany, Zoology, but related to achievement in individual humanities subjects, namely, History, Politics, Economics and also individual language subjects namely Telugu and English.

Variables 6 and 7 (Need for achievement and intelligence) respectively are related to achievement in Languages, in MPC Group and not in CBZ Group. Variable 6 is related to achievement in HPoEc Group whereas variable 7 is not related. Variable 7 is also not related to achievement in individual subjects Botany, Zoology, History, Politics and Economics. Variable 6 is also not related to achievement in individual subjects Botany and Zoology.

Variable 13 (Personality Factor H) is related to HPoEc and CBZ Groups and not to MPC Group. Variables 1, 4, 12, 14, 16 (Parental value on education and achievement, educational facilities in the home, personality factors G, I and M respectively) are related to CBZ Group and not to MPC or HPoEc Groups. Variables 8 and 22 (Personality Factors A and H respectively) are related to achievement in Languages and not to HPoEc, MPC or CBZ Groups. Variables 4 and 17 (Educational facilities in the home and Personality Factor N) are specifically related to achievement in females and not in males.

The results of the present study with regard to Intelligence, Need for achievement, and Home variables are in agreement with some of the findings of the studies reviewed in Chapter II. The home environment variables covered in the study do not appear to have much influence on achievement particularly at college level. It may be true because of the fact that many of the students will be staying far away from their homes during their studies at college and the home environment may not have that influence as was found in the case of primary and secondary stage of education where majority of the students stay with their parents, and home has direct influence over them. Moreover, the college students are mostly from families of better socio-economic status with parents educated to some extent and valuing and encouraging achievement and, hence, the variability in the home variables covered by the study may not be that much to influence the achievement differentially.

From the Hand Book of 16 P.F. () , it is seen that factors A, E, F, H, L, M, O, Q4 are negatively related, C and Q3 are positively related, and G, I, N, Q1 and Q2 are not related to school grades. The present study shows that factors A, C, H, M, Q1 and Q4 are negatively related; G, I, L, N, and Q3 are positively related; E, F, O, and Q2 are not related to achievement. The present findings are in agreement with the previous results so far as factors A, H, M, Q2 and Q3 are concerned. The results of Nichols and Holland (1963) support the present finding of positive relationship of G factor with achievement.

The following general conclusions may be made :

1. Among the twenty-two independent variables, five variables, namely, 5, 10, 11, 18 and 20 (socio-economic status of the home, personality factors E, F, O and Q2 respectively) are not at all related to achievement in any subject of groups of subjects. (Table No. 11)
2. The remaining variables are significantly associated with achievement in one subject or the other (Table 11).
3. Among the twenty-two independent variables studied, there is no single variable which is significantly related, in common, to achievement in all the individual or groups of subjects studied (Table No. 11).

4. The variables significantly related to achievement appear to differ from subject to subject or groups of subjects. That is, the correlates of achievement depend upon the type of achievement criterion chosen. However, there are certain variables which are related to achievement in more than one subject. The variables significantly related to achievement in different subjects or groups of subjects are found in Table No. 11.
5. The extent of relationship of the significantly related variables with achievement in a particular subject varies from variable to variable. That is, each significantly related variable is related differentially to achievement in the same subject (Table No. 10 - Size of correlations).
6. Even in the case of achievement of those subjects with which a particular variable is significantly related, the extent of its relationship varies from subject to subject. That is, the same variable is related differentially to achievement in different subjects (Table No. 10 - Size of correlations).
7. Need for achievement (Variable 6), Intelligence (Variable 7), Personality Factors Q3, G, I, M, and H (Variables 21, 12, 14, 16 and 13 respectively) are significantly related to different achievement criteria more often than the other variables. Emotional happiness

in the home (lack of emotional climate), Parental encouragement, Personality Factors C, N, Q1 are significantly related only with one of the twenty-three achievement criteria (last column of Table No. 11).

The results based on multiple regression and correlation analysis are discussed in the next Chapter.