CHAPTER VI

SUMMARY OF MAIN CONCLUSIONS
CHAPTER VI.

SUMMARY OF MAIN CONCLUSIONS

1. Lovell’s (1935) claim that groups may be conveniently classified into different grades of intellectual stimulation according to the external criterion of ‘good or bad’ schools could not be satisfactorily confirmed.

2. Burt’s (1921) suggestion of regarding educational (or scholastic) attainment as a concomitant of intellectual stimulation was taken into consideration and four internal criteria were assumed with a view to classifying the schools into best stimulating, better stimulating and least stimulating groups.

3. The internal criterion No. 1 (i.e., one with the non-factorial approach to the school subjects) could not be found consistent with the external criteria postulated after the suggestions of Lovell and especially of Vernon (1957) and Burt (1921).

4. The internal criterion No. 2a of factorial (unrotated) approach to the school subjects also miserably failed to show consistency with the schools’ order of stimulation observed by the external criteria.

5. Similarly, the internal criterion No. 2b of factorial (with rotated factors) approach did not show any consistent pattern of intellectual stimulation observed by the external criteria.

6. However, the above internal criteria (no. 1, no. 2a, no. 2b and no. 3) suggested a fairly stable order of stimulation among the schools. Hence, according to each internal criterion, it was decided to classify the schools under the best stimulating, better stimulating and least stimulating groups.
7. But, as the above internal criteria did not show any consistency with the external criterion, it was also decided to classify the individual's according to the attainment factors present in the school subjects. These factors were: (a) general attainment factor; (b) literary-linguistic-numerical factor, and (c) good expression.

8. Before going to the study of influence of intellectual stimulation on intelligence, the ability tests were factorized, yielding fairly clearly the following factors: (a) 'g' factor; (b) verbal-numerical-educational; and (c) kṣa.

9. When the influence of intellectual stimulation on intelligence was studied under each of the external and the various internal criteria, not all but some of the tests such as V.I.T., Verne's Graded Arithmetic-Mathematics test, and Verne's Drawing Pattern, could confirm the relationship between intelligence and intellectual stimulation classifying the schools either in terms of internal criteria or external criterion.

10. True, several 'C.r.' and 'r' values have been found quite significant but few of them go to confirm the classification of the schools under any of the criteria mentioned above with the following exceptions where the external criterion but not the internal criteria no. 2a and no. 2b was fairly satisfactorily confirmed: (a) in the high group the tests of verbal educational numerical group factor, such as V.I.T., Verne's Maths, and Verne's Drawing Pattern, fairly consistently showed significant pattern of differences between the schools when their respective boys were selected under top groups on the basis of the total examination marks (i.e., under rotated factor III or k'.3) in all school subjects; (b) in the low group
though the same pattern maintained, at several places the differences were not significant.

Under $h^2_2$ we observe the above said $v$ ability tests moderately confirmed the internal criterion no. 2b. This study suggests that the literary-linguistic-numerical attainment has a strong overlapping with the $v$ ability test scores.

II. Under the internal criterion no. 1 (with non-factorial approach to the school subjects) interesting observations were made from the orders maintained by the schools when the group mean differences in different ability tests were studied. The two tests, namely Veron's Maths, and Raven's Matrices could confirm the external criterion whereas Veron's $g$ and Block Design only moderately confirmed the internal criterion. This is probably because in our factorisation of the battery we have observed that Maths and Matrices have similarity of loading in the third factor, namely him Matrices was found to contain "spatial manipulation" and Maths "numerical manipulation". Similarly Veron's $g$ and Blocks have similarity in their "non-verbal constructive content".

12. *V.R. :* The factor content of the test is $g + v$:

(i) All the three C.R. values were significant but schools' order of stimulation confirmed the internal criterion No. 1 and not the external criterion probably due to the $v$ group factor did not find any difference between the subjects at the verbal-educational level or in other words, all the three schools had almost equal amount of training at the $v$ level.

(ii) Seventeen $t$ values out of 24 under the internal criteria no. 2a and no. 2b were significant. The external criterion was confirmed especially
under k^3 and though the internal criteria no. 2a and no. 2b were fairly clearly confirmed at several places, no consistent suggestion of classification of schools could be obtained.

(iii) All the nine 't' values of the mean differences between the groups classified under the attainment factors alone were significant, suggesting re-grouping of the individuals under any schooling system but under these very factors.

13. *Women's Graded Arithmetic-Mathematics Test*: The factor content of the test is \( g^a + n + ed \):

(i) C.R. values were highly significant, and confirmed the order of the intellectual stimulation suggested by the external criterion.

(ii) 10 out of 24 't' values under the internal criterion no. 2a and no. 2b were significant and strongly confirmed the expectation of intellectually stimulated schools postulated by the external criterion.

(iii) 6 out of 9, 't' values under the groupings of the individuals in terms of factors alone were significant; and suggested the re-grouping of the individuals under these factors alone.

(iv) This is one of the satisfactory tests which could confirm the expectations after the suggestion of Lovell (1935), probably due to the selection of a sample of adolescents matched from the angle of educational or scholastic training, though differing in degrees only.

14. *Women's Pattern Drawing*: The factor content of the test is "spatial equation" which comes under \( v + ed + n \).

(i) None of the C.R. values were significant.

(ii) 15 out of 24 't' values under the internal criteria no. 2a and
no. 2b were significant, but failed to confirm the external criterion except under \( k^* \), though the internal criteria moderately verified.

(iii) 7, out of 9, 't' values, when the individuals grouped under factors alone, were significant, and again confirmed the suggestion of re-grouping the individuals under these factors alone.

15. Vernon's 'g': The factor content of the test is mainly 'g'.

(i) Only two C.R. values were significant.

(ii) Only 2, out of 24, 't' values under the internal criteria no. 2a and no. 2b were significant and did not confirm any of the criteria of classifying the schools. This clearly shows that the schools were very neatly matched from the angle of general intelligence and suggested that any additional factor present besides 'g' might be observed by tests other than this 'g' test. The findings also confirmed the claims of Vernon (1967) and Lovell (1955) that the intellectual stimulation does not affect the 'g' factor so much as the other factors dependent on the development due to training or stimulation during adolescence.

(iii) When the individuals regrouped factor-wise without any reference to schooling, only 5, out of 9, 't' values were significant, confirming the hypothesis of the distribution of 'g' factor not in terms of schooling but in terms of other factors, the sources of which could not be detected due to the restriction of the experimental design in the present investigation.

16. Raven's Progressive Matrices: Primarily of 'g' and somewhat of \( k^{*} \) content:

(i) All the three C.R. values were significant and strictly confirmed the external criterion. This is another test, like Vernon's Maths which
satisfactorily confirmed the external criteria.

(ii) 6, out of 24, 't' values under internal criteria no, 2a and no, 2b were significant and did not confirm any criteria, external or internal, but peculiarly enough this test shows a consistent pattern in all the criteria, and in both the groups, highs and lows, though 't' values were mostly insignificant.

(iii) When the individuals were classified under the factors alone, only 7, out of 9, 't' values were significant, and like other tests already mentioned suggested the need for re-grouping the individuals not under any schooling system but under the factors alone.

17. **Block Design (Kim)**

(i) Only two C.R. values were significant and did not strictly confirmed any of the criteria, internal or external.

(ii) 11, out of 24, 't' values under internal criteria no, 2a and no, 2b were significant, and did not confirm any of the internal and external criteria except in β2 and that also in the highs group and not in the group of the lows.

(iii) When the individuals were re-grouped factorwise, only 3, out of 9, 't' values were significant and confirmed the pattern shows by other tests, suggesting the need for classifying individuals not in terms of schools but in terms of the attainment factors, the sources of which could not again be detected due to the limitations of the experimental design.